



RECIRCULATED DRAFT

ENVIRONMENTAL IMPACT REPORT – VOLUME III

FOR THE

MANTECA GENERAL PLAN UPDATE
(SCH: 2020019010)

NOVEMBER 2022

VOLUME I: COVER THROUGH SECTION 3.5

VOLUME II: SECTION 3.6 THROUGH CHAPTER 4.0

VOLUME III: CHAPTER 5.0 THROUGH CHAPTER 7.0

VOLUME IV: APPENDICES

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D e N o v o P l a n n i n g G r o u p

A Land Use Planning, Design, and Environmental Firm



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5.1 CEQA REQUIREMENTS

CEQA requires that an EIR analyze a reasonable range of feasible alternatives that meet most or all of the project objectives while potentially reducing or avoiding one or more environmental effects of the project. The range of alternatives required in an EIR is governed by a “rule of reason” that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6[f]). Where a potential alternative was examined but not chosen as one of the range of alternatives, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed.

Alternatives that are evaluated in the EIR must be potentially feasible alternatives. However, not all possible alternatives need to be analyzed. An EIR must “set forth only those alternatives necessary to permit a reasoned choice.” (CEQA Guidelines, Section 15126.6(f).) The CEQA Guidelines provide a definition for a “range of reasonable alternatives” and, thus limit the number and type of alternatives that need to be evaluated in an EIR. An EIR need not include any action alternatives inconsistent with the lead agency’s fundamental underlying purpose in proposing a project. (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1166.)

First and foremost, alternatives in an EIR must be potentially feasible. In the context of CEQA, “feasible” is defined as:

... capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors. (CEQA Guidelines 15364)

5.2 ALTERNATIVES CONSIDERED IN THIS EIR

FACTORS GUIDING SELECTION OF ALTERNATIVES

A Notice of Preparation was circulated to the public to solicit recommendations for a reasonable range of alternatives to the proposed project. Additionally, a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the proposed project. No specific alternatives were recommended by commenting agencies or the general public during the NOP public review and comment period.

The alternatives to the General Plan Update selected for analysis in the EIR were developed to minimize significant environmental impacts while fulfilling the basic objectives of the project, and address public, City staff, and elected officials’ input with respect to potential land use and growth scenarios that may be appropriate for consideration as part of the General Plan Update. Significant impacts are summarized in Chapter 4.0 and described in greater detail in Sections 3.1 through 3.16. As described in Chapter 2.0 (Project Description), the following objectives have been identified for the proposed project:

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1. Reflect the current goals and vision expressed by city residents, businesses, decision-makers, and other stakeholders;
2. Address issues and concerns identified by city residents, businesses, decision-makers, and other stakeholders;
3. Protect Manteca's family-oriented environment, character, and sense of community;
4. Establish a long-term plan for conservation of resources and future growth and development;
5. Provide a range of high-quality housing options and accommodate a variety of housing types;
6. Retain and attract businesses and industries that provide high-quality and high-paying jobs so that residents can live and work in Manteca;
7. Expand retail shopping opportunities to provide better local services and increased sales tax revenues;
8. Continue to maintain the road network, improve multimodal transportation opportunities, and identify truck routes;
9. Maintain strong fiscal sustainability and continue to provide efficient and adequate public services;
10. Provide a basis for City decision-makers, City departments, other public agencies, and private developers to design projects that enhance the character of the community and achieve the City's desired growth, safety, and conservation objectives; and
11. Address requirements of State law.

SIGNIFICANT AND UNAVOIDABLE IMPACTS

The proposed General Plan Update would result in the following significant and unavoidable impacts, which are described in Sections 3.1 through 3.14 and Chapter 4.0:

- **Impact 3.2-1:** General Plan implementation would result in the conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, to non-agricultural use;
- **Impact 3.2-2:** General Plan implementation would conflict with existing zoning for agricultural use, or a Williamson Act Contract;
- **Impact 3.3-1:** General Plan implementation would conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants;
- **Impact 3.12-1:** General Plan implementation may result in exposure to significant traffic noise sources;
- **Impact 3.14-1:** General Plan implementation may result in VMT per dwelling unit and VMT per employee increases that are greater than 85 percent of Baseline conditions;
- **Impact 3.14-2:** General Plan implementation may conflict with a program, plan, policy or ordinance addressing the circulation system, including transit, bicycle, and pedestrian facilities;
- **Impact 3.14-3:** General Plan implementation may increase hazards due to a design feature, incompatible uses, or inadequate emergency access;

- **Impact 4.2:** Cumulative impact to agricultural lands and resources;
- **Impact 4.3:** Cumulative impact on the region's air quality;
- **Impact 4.12:** Cumulative impacts related to noise;
- **Impact 4.14:** Cumulative impacts on the transportation network;
- **Impact 4.17:** Irreversible and adverse effects.

ALTERNATIVES TO THE GENERAL PLAN UPDATE

Four alternatives to the General Plan Update were considered based on the analysis performed to identify the environmental effects of the proposed project. Since the General Plan Update was prepared with the intent to be a self-mitigating document, project alternatives focused on amending land uses to potentially address impacts. The four alternatives analyzed in this EIR are described below.

Alternative A: No Project Alternative

Under Alternative A, the City would not adopt the General Plan Update. The existing Manteca General Plan would continue to be implemented and no changes to the General Plan, including the Land Use Map, Major Street Master Plan, Proposed Truck Route, goals, policies, or actions would occur. Subsequent projects, such as amending the Municipal Code (including the zoning map) and the City's Design Guidelines, would not occur. The existing General Plan Land Use Map is shown on Figure 5.0-1.

Under Alternative A (No Project Alternative), the City would continue to implement the existing General Plan and no changes would be made to address updated General Plan Guidelines, or the requirements of State law. Since adoption of the existing General Plan, State legislation has been passed requiring the City to address new safety, environmental justice, and circulation requirements in the General Plan and to further address greenhouse gas emissions. Additionally, while the City currently has a certified Housing Element, it will be required to update its Housing Element and receive new State certification by December 2023, and the existing General Plan does not conform to state requirements regarding planning for future housing growth. The General Plan goals, policies, and actions, as well as the Land Use Map, would not be updated to address the vision and concerns of the City's residents, property owners, decision-makers, and other stakeholders that actively participated in the visioning and goal and policy development process.

Under Alternative A, new growth would be allowed as envisioned under the existing General Plan, with land uses required to be consistent with the existing General Plan Land Use Map. Therefore, Alternative A would result in the continuation of existing conditions and development levels, as described in Chapter 3.10 (Land Use and Population) and as shown in Table 2.0-3 in Chapter 2.0 (Project Description). The existing General Plan Land Use Map is shown in Figure 5.0-1 and Table 5.0-1 shows the acreages of each land use designation for the existing General Plan Land Use Map compared to the proposed Land Use Map.

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As shown in Table 5.0-1, when compared to the Proposed General Plan, Alternative A offers fewer opportunities to develop by providing a more focused area for development within the Planning Area through committing over 5,000 acres for urban reserve uses. As shown in Table 5.0-1, Alternative A would provide for a decrease in residential uses by 757 acres, a decrease in commercial/industrial/professional uses by 1,034 acres, and a decrease in mixed uses by 264 acres. Additionally, public land uses would also decrease by 354 acres.

TABLE 5.0-1: ALTERNATIVE A v. PROPOSED GENERAL PLAN LAND USE DESIGNATIONS COMPARISON

<i>LAND USE DESIGNATION</i>	<i>PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)</i>	<i>ALTERNATIVE A – NO PROJECT (ACRES)</i>	<i>DIFFERENCE</i>
<i>RESIDENTIAL LAND USES</i>			
Very Low Density Residential	492	944	452
Low Density Residential	8,274	7,436	-838
Medium Density Residential	679	356	-323
High Density Residential	470	421	-49
<i>Residential Subtotal</i>	<i>9,914</i>	<i>9,157</i>	<i>-757</i>
<i>MIXED USE LAND USES</i>			
Commercial Mixed Use	673	568	-105
Downtown	160	0	-160
<i>Mixed Use Subtotal</i>	<i>832</i>	<i>568</i>	<i>-264</i>
<i>COMMERCIAL, PROFESSIONAL, AND INDUSTRIAL LAND USES</i>			
Business Professional	83	14	-69
Business Industrial Park	295	208	-87
Commercial	1,203	5	-1,198
General Commercial	0	895	895
Neighborhood Commercial	0	178	178
Light Industrial	0	1,051	1,051
Heavy Industrial	0	690	690
Industrial	2,262	0	-2,262
Agricultural Industrial	232	0	-232
<i>Commercial, Professional, and Industrial Subtotal</i>	<i>4,075</i>	<i>3,041</i>	<i>-1,034</i>
<i>PUBLIC LAND USES</i>			
Public/Quasi-Public	1,344	1,160	-184
Park	726	580	-146
Open Space	471	447	-24
<i>Public Subtotal</i>	<i>2,541</i>	<i>2,187</i>	<i>-354</i>
<i>OTHER LAND USES</i>			
Agriculture	4,004	3,944	-60
Right-of-Way	179	135	-44
Water	180	0	-180
<i>Other Subtotal</i>	<i>4,364</i>	<i>4,079</i>	<i>-285</i>
<i>URBAN RESERVE</i>			
Urban Reserve – Very Low Density Residential	775	590	-185
Urban Reserve – Low Density Residential	808	1,307	499
Urban Reserve – Medium Density Residential	28	20	-8

<i>LAND USE DESIGNATION</i>	<i>PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)</i>	<i>ALTERNATIVE A – NO PROJECT (ACRES)</i>	<i>DIFFERENCE</i>
Urban Reserve – High Density Residential	19	0	-19
Urban Reserve – Commercial Mixed Use	0	201	201
Urban Reserve – Business Industrial Park	302	412	110
Urban Reserve – Commercial	0	0	0
Urban Reserve – General Commercial	0	38	38
Urban Reserve – Industrial	694	0	-694
Urban Reserve – Light Industrial	0	36	36
Urban Reserve – Park	18	67	49
Urban Reserve – Public/Quasi-Public	30	12	-18
Urban Reserve – Agriculture	0	1,734	1,734
Urban Reserve	0	955	955
<i>Urban Reserve Subtotal</i>	<i>2,677</i>	<i>5,372</i>	<i>2,695</i>
TOTAL	24,404	24,404	0

SOURCE: DE NOVO PLANNING GROUP, 2022.

As shown in Table 5.0-1, Alternative A would result in increased housing and job growth within the Manteca city limits when compared to existing conditions, but substantially less overall growth than all other alternatives. Under Alternative A at full buildout, there would be an increase over existing conditions in residential growth (approximately 26,152 dwelling units) and non-residential growth (approximately 24,541,050 square feet) within City limits. Under cumulative conditions, development in Planning Area combined under Alternative A would result in a population of 172,998 and 42,457 jobs.

Under Alternative A, the existing General Plan policy framework would still be in effect, which would constitute a status quo approach to land use regulation in the City. As shown in Table 5.0-1, the proposed General Plan Land Use Map consolidates a number of existing land use designations, as well as establishes new land use designations (i.e., Downtown and Agricultural Industrial). The proposed General Plan, along with the policy framework proposed by the General Plan Update, encourages and aims to provide the framework and land use pattern for logical, orderly growth from the City’s compact, historic center extending to well-delineated residential neighborhoods, employment centers, and community amenities to meet the City’s long-term housing, employment, and civic needs. The land uses allowed under the proposed General Plan provide opportunities for cohesive new growth at in-fill locations within existing urbanized areas of the city, as well as new growth adjacent to existing urbanized areas. A mix and balance of uses to provide an improved ratio of local jobs to population, would ensure that development pays its fair-share of necessary roadway, public service, and other infrastructure improvements, and that provides for increased protection of natural resources would occur. The proposed General Plan was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection.

Alternative A would not include updated policies, particularly those related to housing, greenhouse gases, and complete streets policies to address safety, access, and mobility for all roadway users, as required by State law. This alternative would not include various policies

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proposed in the General Plan update to ensure protection of environmental resources, both at a project level and under cumulative conditions, consistent with the objectives of CEQA, and to ensure compatibility between residential uses and more intense uses, such as industrial.

Alternative A fails to meet several of the basic project objectives, including the following:

1. Reflect the current goals and vision expressed by City residents, businesses, decision-makers, and other stakeholders.
2. Address issues and concerns identified by City residents, businesses, decision-makers, and other stakeholders.
4. Maintain Manteca's family-oriented community character with gathering places, activities, and parks/recreation opportunities for all ages located in attractive, sustainable, and safe neighborhoods and throughout the community.
6. Revitalize and enhance the Downtown.
7. Provide and encourage high-quality housing options and a variety of housing types for all income levels.
8. Provide and promote high-paying, local employment opportunities and retain and attract high-quality businesses and industry so that residents can live, shop, and work in Manteca.
9. Maintain strong fiscal sustainability that ensure efficient and adequate public services and amenities and supports improved multimodal transportation opportunities, and, through promoting land uses that increase local revenues and ensuring development pays its fair-share.
10. Provide a basis for City decision-makers, City departments, other public agencies, and private developers to design projects that enhance the character of the community and achieve the City's desired growth, safety, and conservation objectives.
11. Address new requirements of State law, including addressing environmental justice, safety, climate adaptation and resilience, and transportation, including complete streets and VMT.

Alternative A does not include changes to the General Plan goals, policies, and programs nor to the land use map that have been prepared to address the vision of the community as identified during the General Plan visioning process and throughout the General Plan Advisory Committee process of reviewing and considering community input and recommending changes to the goals, policies, programs, and topics addressed by the General Plan. Alternative A does not provide for expanded employment opportunities and support for more local jobs to serve the City's residents. Alternative A does not include new and revised goals, policies, and programs that support fiscal sustainability and promote efficient, adequate public services and amenities. Alternative A does not include updates to the General Plan that address the requirements of State law related to environmental justice, transportation, including vehicle miles travelled, and safety, including climate adaptation.

Therefore, Alternative A (No Project) is rejected from further consideration as a CEQA alternative, as it fails to meet several of the project objectives. However, for reference, the environmental effects associated with Alternative A are discussed and summarized in Table 5.0-9 to provide a

general comparison between the adopted Manteca General Plan (Alternative A – No Project), the proposed project, and Alternatives B and C.

Alternative B: Residential and Balanced Employment Growth

Alternative B continues to provide for a balance of job-creating and residential development land uses. Alternative B would continue to encourage infill development throughout the City, as well as new growth in greenfield areas that extend the City's existing development pattern. Figure 5.0-2 shows the Land Use Map for Alternative B, which includes the following major changes from the Proposed General Plan:

1. The Urban Reserve overlay is applied in the area north of Roth Road and West of Airport Way to identify long-term desires for future industrial and employment-generating growth in this area and to promote efficient delivery of City services (same as Alternative C).
2. A residential/commercial node with High Density Residential, Medium Density Residential, and Mixed Use Commercial uses is created east of Airport Way between Lovelace Road and the future Roth Road extension and Low Density Residential uses are extended to Airport Way.
3. In the majority of the Planning Area, the Urban Reserve overlay is removed and replaced with the Agriculture designation.
4. An underutilized infill site northeast of Union Road and W. Alameda Street is changed from High Density Residential to Commercial and Public/Quasi- Public.
5. Policy Area 1 is revised to support the relocation of the Lovelace Materials Recovery Facility and Transfer Station through envisioning the facility and surrounding area for Commercial Mixes Use and residential use.
6. Policy Area 2 is revised to focus on jobs- and employment-generating uses in the vicinity of future transit uses.
7. Policy Area 5 is revised to increase Medium Density Residential uses and include a Park site.
8. An unincorporated island between Moffat Boulevard and Industrial Park Drive is changed from Commercial Mixed Use to Industrial.
9. The Urban Reserve overlay is removed from the Oakwood Lakes area.
10. Infill opportunities in the select areas in the City southwest of Atherton Road and Main Street are changed from Commercial to residential designations, Low, Medium, and High Density Residential, from High Density Residential to Commercial southwest of the Highway 120/Union Road interchange (same as Alternative C).

As with Alternatives C and D, this alternative reduces allowed densities and site coverage, as described below, to provide for greater flexibility in site design and increase opportunities to buffer residential and sensitive uses from more intensive uses:

- 15.1 to 25 units per acre allowed in the High Density Residential, Mixed Use Commercial, and Downtown designations,
- 8.1 to 15 units per acre in the Medium Density Residential designation, and

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- Reduce site coverage in the Downtown to 75%.

This alternative increases in residential development, including low density residential and multifamily uses, and a decrease in commercial and employment-generating industrial and professional land use designations to reduce total vehicle miles travelled. This alternative was developed to potentially reduce the severity of significant impacts associated with transportation and circulation and also to reduce the severity of impacts associated with air quality and greenhouse gases.

Alternative B (Residential and Balanced Employment Growth Alternative) places greater emphasis on employment growth by revising the proposed General Plan Land Use Map, including increased professional, business industrial park, and public/quasi-public uses and decreased medium density residential, mixed use, commercial, industrial, and open space uses within the Planning Area. Alternative B would reduce the Urban Reserve overlay by 2,298 acres in the area of SR 99 and south of French Camp Road in order to discourage future development within the urban fringe. Alternative B would result in more residential and job growth than the proposed General Plan. Additionally, Alternative B would facilitate more residential and nonresidential growth than Alternative A, the existing General Plan, more residential growth but slightly less nonresidential growth than Alternative C (Increased Intensity Residential and Balanced Employment Growth Alternative), and more residential and less non-residential growth than Alternative D (Previous Proposed Project).

Alternative B would adopt most of the goals, policies, and actions of the proposed General Plan Update policy document, which would apply to subsequent development, planning, and infrastructure projects under this alternative, except for the changes to address the Land Use Map revisions as previously described. However, as previously described, land use designations under Alternative B would be modified as shown on Figure 5.0-2 and summarized in Table 5.0-2.

As shown in Table 5.0-2, Alternative B would provide for approximately 279 more acres of residential uses and 87 fewer acres of mixed use development to facilitate additional higher density residential growth and a greater variety of housing types within the Planning Area, when compared to the Proposed Land Use Map. Additionally, Alternative B would provide for 145 more acres of employment-generating commercial, professional, and industrial uses, when compared to the Proposed Land Use Map.

TABLE 5.0-2: ALTERNATIVE B V. PROPOSED GENERAL PLAN LAND USE DESIGNATIONS COMPARISON

<i>LAND USE DESIGNATION</i>	<i>PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)</i>	<i>ALTERNATIVE B – RESIDENTIAL AND BALANCED EMPLOYMENT GROWTH (ACRES)</i>	<i>DIFFERENCE</i>
<i>RESIDENTIAL LAND USES</i>			
Very Low Density Residential	492	491	-1
Low Density Residential	8,274	8,611	337
Medium Density Residential	679	613	-66
High Density Residential	470	478	8
<i>Residential Subtotal</i>	<i>9,914</i>	<i>10,193</i>	<i>279</i>

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<i>LAND USE DESIGNATION</i>	<i>PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)</i>	<i>ALTERNATIVE B - RESIDENTIAL AND BALANCED EMPLOYMENT GROWTH (ACRES)</i>	<i>DIFFERENCE</i>
<i>MIXED USE LAND USES</i>			
Commercial Mixed Use	673	585	-88
Downtown	160	160	0
<i>Mixed Use Subtotal</i>	832	745	-87
<i>COMMERCIAL, PROFESSIONAL, AND INDUSTRIAL LAND USES</i>			
Business Professional	83	101	18
Business Industrial Park	295	773	478
Commercial	1,203	1,169	-34
Industrial	2,262	1,951	-311
Agricultural Industrial	232	232	0
<i>Commercial, Professional, and Industrial Subtotal</i>	4,075	4,220	145
<i>PUBLIC LAND USES</i>			
Public/Quasi-Public	1,344	1,405	61
Park	726	734	8
Open Space	471	447	-24
<i>Public Subtotal</i>	2,541	2,586	45
<i>OTHER LAND USES</i>			
Agriculture	4,004	5,915	1,911
Right-of-Way	179	179	0
Water	180	180	0
<i>Other Subtotal</i>	4,364	6,275	1,911
<i>URBAN RESERVE</i>			
Urban Reserve – Very Low Density Residential	775	0	-775
Urban Reserve – Low Density Residential	808	111	-697
Urban Reserve – Medium Density Residential	28	0	-28
Urban Reserve – High Density Residential	19	0	-19
Urban Reserve – Business Industrial Park	302	261	-41
Urban Reserve – Commercial	0	0	0
Urban Reserve – Industrial	694	0	-694
Urban Reserve – Park	18	7	-11
Urban Reserve – Public/Quasi-Public	30	0	-30
<i>Urban Reserve Subtotal</i>	2,677	379	-2,298
TOTAL	24,404	24,404	0

SOURCE: DE NOVO PLANNING GROUP, 2022.

Alternative C: Increased Intensity Residential and Balanced Employment Growth

Alternative C would revise the General Plan Land Use Map to place more emphasis on identifying specific areas for residential growth, including medium and high density residential land uses and

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encouraging the distribution of these uses throughout residential neighborhoods. Alternative C continues to provide for a balance of job-creating and residential development land uses, but would reduce commercial and other employee-generating uses in order to reduce vehicle miles travelled. Alternative C would continue to encourage infill development throughout the City, as well as new growth in greenfield areas that extend the City's existing development pattern. Figure 5.0-3 shows the Land Use Map for Alternative C, which includes the following major changes from the Proposed General Plan:

1. The Urban Reserve overlay is applied to an expansion of the Planning Area in the area north of Roth Road and West of Airport Way to identify long-term desires for future industrial and employment-generating growth in this area and to promote efficient delivery of City services (same as Alternative B).
2. A residential/commercial node with High Density Residential, Medium Density Residential, and Mixed Use Commercial uses is created east of Airport Way between Lovelace Road and the future Roth Road extension with Low Density Residential uses extending south from the future Roth Road extension. Alternative C differs from Alternative B in this location as Alternative C includes extended Commercial designation along the future Roth Road extension and includes a narrow swath of the Park land use designation between Airport Way and the proposed Medium Density Residential and High Density Residential uses.
3. The Urban Reserve overlay is placed on a portion of lands north of the future Roth Road extension and east of Union Road and this area, including both the Urban Reserve area as well as future growth areas, is designated Business Industrial Park, increasing the potential for industrial and employment-generating uses in this area (same as Alternative B).
4. The Urban Reserve overlay is removed from a portion of Industrial and Business Industrial Park identified in the northern portion of the Planning Area east of Highway 99.
5. An underutilized infill site northeast of Union Road and W. Alameda Street is changed from High Density Residential to Low Density Residential.
6. Policy Area 1 is revised to support the relocation of the Lovelace Materials Recovery Facility and Transfer Station through envisioning the facility and surrounding area for Commercial Mixes Use and residential use.
7. Policy Area 2 is revised to focus on jobs- and employment-generating uses in the vicinity of future transit uses.
8. Policy Area 5 is revised to increase Medium Density Residential uses and include a Park site.
9. An unincorporated island between Moffat Boulevard and Industrial Park Drive is changed from Commercial Mixed Use to Industrial.
10. The Urban Reserve overlay is removed from the Oakwood Lakes area.
11. Infill opportunities in the select areas in the City southwest of Atherton Road and Main Street are changed from Commercial to residential designations, Low, Medium, and High Density Residential, from High Density Residential to Commercial southwest of the Highway 120/Union Road interchange (same as Alternative C).

12. Lands south of Graves Road are revised to replace a portion of the proposed Mixed Use and Business Industrial Park designations with Medium Density Residential, High Density Residential, and a narrow Parks strip separating residential designations from Industrial uses and Highway 99.

As with Alternatives B and D, this alternative reduces allowed densities and site coverage, as described below, to provide for greater flexibility in site design and increase opportunities to buffer residential and sensitive uses from more intensive uses:

- 15.1 to 25 units per acre allowed in the High Density Residential, Mixed Use Commercial, and Downtown designations,
- 8.1 to 15 units per acre in the Medium Density Residential designation, and
- Reduce site coverage in the Downtown to 75%.

This alternative emphasizes an increase in residential development, with an emphasis on increasing low and high density residential development within neighborhoods, a decrease in mixed uses, and an increase in business professional and business industrial parks uses to improve the jobs/housing balance. This alternative was developed to potentially reduce the severity of significant impacts associated with transportation and circulation and also to reduce the severity of impacts associated with air quality, greenhouse gases, and noise.

Alternative C (Increased Intensity Residential and Balanced Employment Growth Alternative) provides for more residential development and increased employment growth similar to Alternative B; however, Alternative C provides more Medium Density Residential opportunities than Alternative B in order to better distribute higher intensity residential uses in planned neighborhoods and near parks. Additionally, Alternative B focuses on retention of agricultural uses through application of the Agriculture designation while Alternative C continues to plan for long-term urbanization of the Planning Area through more extensive application of the Urban Reserve overlay. Additionally, Alternative C has also been designed, similar to Alternative B, to provide buffers between high density residential uses and industrial and other intensive uses.

Overall, Alternative C would revise the proposed General Plan Land Use Map to provide an increase in residential, professional, business, and public/quasi-public land uses and a decrease commercial, mixed use, and industrial land uses. As shown in Table 5.0-3, Alternative C would allow for more residential growth than the proposed General Plan, less mixed uses, and more job growth. Compared to Alternative B, Alternative C would provide for slightly more nonresidential and multi-family residential growth, but slightly less overall residential growth. Additionally, Alternative C would facilitate more residential and nonresidential growth than Alternative A, the existing General Plan.

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TABLE 5.0-3: ALTERNATIVE C V. PROPOSED GENERAL PLAN LAND USE DESIGNATIONS COMPARISON

<i>LAND USE DESIGNATION</i>	<i>PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)</i>	<i>ALTERNATIVE C – INCREASED INTENSITY RESIDENTIAL AND BALANCED EMPLOYMENT GROWTH (ACRES)</i>	<i>DIFFERENCE</i>
<i>RESIDENTIAL LAND USES</i>			
Very Low Density Residential	492	491	-1
Low Density Residential	8,274	8,565	291
Medium Density Residential	679	619	-60
High Density Residential	470	477	7
<i>Residential Subtotal</i>	<i>9,914</i>	<i>10,152</i>	<i>238</i>
<i>MIXED USE LAND USES</i>			
Commercial Mixed Use	673	585	-88
Downtown	160	160	0
<i>Mixed Use Subtotal</i>	<i>832</i>	<i>745</i>	<i>-87</i>
<i>COMMERCIAL, PROFESSIONAL, AND INDUSTRIAL LAND USES</i>			
Business Professional	83	107	24
Business Industrial Park	295	787	492
Commercial	1,203	1,187	-16
Industrial	2,262	1,951	-311
Agricultural Industrial	232	232	0
<i>Commercial, Professional, and Industrial Subtotal</i>	<i>4,075</i>	<i>4,264</i>	<i>189</i>
<i>PUBLIC LAND USES</i>			
Public/Quasi-Public	1,344	1,405	61
Park	726	745	19
Open Space	471	452	-19
<i>Public Subtotal</i>	<i>2,541</i>	<i>2,602</i>	<i>61</i>
<i>OTHER LAND USES</i>			
Agriculture	4,004	4,004	0
Right-of-Way	179	179	0
Water	180	180	0
<i>Other Subtotal</i>	<i>4,364</i>	<i>4,364</i>	<i>0</i>
<i>URBAN RESERVE</i>			
Urban Reserve – Very Low Density Residential	775	775	0
Urban Reserve – Low Density Residential	808	576	-232
Urban Reserve – Medium Density Residential	28	20	-8
Urban Reserve – High Density Residential	19	19	0
Urban Reserve – Business Industrial Park	302	594	292
Urban Reserve – Commercial	0	32	32
Urban Reserve – Industrial	694	717	23
Urban Reserve – Park	18	16	-2
Urban Reserve – Public/Quasi-Public	30	1	-29
<i>Urban Reserve Subtotal</i>	<i>2,677</i>	<i>2,750</i>	<i>73</i>
TOTAL	24,404	24,877	473

SOURCE: DE NOVO PLANNING GROUP, 2022.

Alternative C would adopt the goals, policies, and actions of the proposed General Plan Update policy document, which would apply to subsequent development, planning, and infrastructure projects under this alternative, except for the changes to address the Land Use Map revisions as previously described. As previously described, land use designations under Alternative C would be modified as shown on Figure 5.0-3 and summarized in Table 5.0-3.

As shown in Table 5.0-3, Alternative C would provide for approximately 238 more acres of residential uses and 87 fewer acres of mixed use development to facilitate additional residential growth within the Planning Area, when compared to the Proposed Land Use Map. Additionally, Alternative B would provide for 189 more acres of employment-generating commercial, professional, and industrial uses, when compared to the Proposed Land Use Map.

Alternative D: Previous Proposed Project (March 2021)

Alternative D is identical to the previously-proposed Draft General Plan, including the Land Use Map, which was analyzed in the Draft EIR for the Manteca General Plan Update (dated March 2021). Alternative D is included to ensure transparency in the General Plan Update process by providing for a comparison between the previously proposed Draft General Plan that was circulated for public review and analyzed in the May 2021 Draft EIR and the Revised Draft General Plan, as described in Chapter 2.0, Project Description.

Alternative D continues to provide for a balance of job-creating and residential development land uses. Alternative D would continue to encourage infill development throughout the City, as well as accommodate new growth in greenfield areas that extend the City's existing development pattern. Alternative D includes the proposed Truck Route from the previously-proposed Draft General Plan. Figure 5.0-4 shows the Land Use Map for Alternative D, which includes the following major changes from the Proposed General Plan:

1. The Planning Area is expanded in the area north of Roth Road and West of Airport Way to identify long-term desires for future commercial, industrial, and employment-generating growth in this area and to promote efficient delivery of City services (similar to Alternatives B and C), with the Urban Reserve overlay applied to the northern portion of the extension.
2. East of Airport Way and north of the Roth Road extension, Business Industrial Park uses are added with the Urban Reserve overlay applied to the northern portion to focus growth in the northwest portion of the Planning Area closer to the Roth Road extension.
3. The Villa Ticino policy area reverts from the approved land use plan to establish an area for Industrial growth.
4. West of Airport Way and south of Lathrop Road, Industrial uses are added between Lathrop Road and the UPRR railroad tracks, increasing the Industrial designation along Airport Way.
5. Policy Area 1 is reduced to support the relocation of the Lovelace Materials Recovery Facility and Transfer Station through envisioning the facility and surrounding area for a range of residential uses, with Commercial Mixed Use located along Airport Way to buffer residential uses from more intensive uses. The area south of Policy Area 1 along Lovelace

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- Road is changed to Low Density Residential to be consistent with the modifications north of Lovelace Road.
6. Policy Area 2 is revised to focus on jobs- and employment-generating uses in the vicinity of future transit uses.
 7. Policy Area 5 is revised to increase Medium Density Residential uses and include a Park site.
 8. An underutilized infill site northeast of Union Road and W. Alameda Street is changed from High Density Residential to Low Density Residential.
 9. The Commercial designation is applied to the area southwest of the Union Road and Highway 120 interchange, reducing the potential for high density residential uses in this area.
 10. The area west of the intersection of Moffat Boulevard and Industrial Park Drive is designated Industrial to promote employment-generating uses and increase compatibility with adjacent uses designated Industrial.
 11. The Commercial designation is applied to the area southwest of the Main Street and Highway 120 interchange, reducing residential uses adjacent to Highway 120.
 12. The Urban Reserve overlay is removed from the Oakwood Lake area in the southwest portion of the Planning Area outside of the City limits.

As with Alternatives B and C, this alternative reduces allowed densities and site coverage, as described below, to provide for greater flexibility in site design and increase opportunities to buffer residential and sensitive uses from more intensive uses:

- 15.1 to 25 units per acre allowed in the High Density Residential, Mixed Use Commercial, and Downtown designations,
- 8.1 to 15 units per acre in the Medium Density Residential designation, and
- Reduce site coverage in the Downtown to 75%.

This alternative reallocates residential uses, increasing Low Density Residential uses and decreasing Very Low, Medium, and High Density Residential uses, reduces mixed uses, and increases professional and industrial uses. The intent of this alternative is to improve the balance between residential, commercial, and employment-generating industrial and professional land use designations to reduce total vehicle miles travelled. This alternative was developed to potentially reduce the severity of significant impacts associated with transportation and circulation to establish specific routes for heavy truck traffic in order to plan for sensitive receptors near such routes.

Alternative D (Previously Proposed Project) places greater emphasis on balanced employment growth by revising the proposed General Plan Land Use Map to adjust residential uses, decrease mixed uses, and increase professional and industrial land uses within the Planning Area. Alternative D would reduce lands designated Urban Reserve by 242 acres, and increase the overall Planning Area acreage to attract development and promote opportunities in more areas than the proposed project. Alternative D would result in less residential growth and more job growth than the proposed General Plan. Additionally, Alternative D would facilitate more residential and

nonresidential growth than Alternative A, the existing General Plan, and less residential growth but more nonresidential growth than Alternatives B and C.

As the previously proposed Draft General Plan, Alternative D does not include refinements to the policies and actions of the proposed General Plan Update policy document, which would apply to subsequent development, planning, and infrastructure projects under this alternative, including changes to address land use, air quality, circulation, conservation, and climate adaptation and changes to address the Land Use Map revisions.

As shown in Table 5.0-4, Alternative D would provide for approximately 20 more acres of residential uses and 102 fewer acres of mixed use development when compared to the Proposed Land Use Map. Additionally, Alternative D would provide for 770 more acres of employment-generating commercial, professional, and industrial uses, when compared to the Proposed Land Use Map.

TABLE 5.0-4: ALTERNATIVE D V. PROPOSED GENERAL PLAN LAND USE DESIGNATIONS COMPARISON

<i>LAND USE DESIGNATION</i>	<i>PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)</i>	<i>ALTERNATIVE D – PREVIOUS PROPOSED GENERAL PLAN (MARCH 2021) (ACRES)</i>	<i>DIFFERENCE</i>
<i>RESIDENTIAL LAND USES</i>			
Very Low Density Residential	492	446	-46
Low Density Residential	8,274	8,495	221
Medium Density Residential	679	575	-104
High Density Residential	470	418	-52
<i>Residential Subtotal</i>	9,914	9,934	20
<i>MIXED USE LAND USES</i>			
Commercial Mixed Use	673	570	-103
Downtown	160	160	0
<i>Mixed Use Subtotal</i>	832	730	-102
<i>COMMERCIAL, PROFESSIONAL, AND INDUSTRIAL LAND USES</i>			
Business Professional	83	126	43
Business Industrial Park	295	714	419
Commercial	1,203	1,192	-11
Industrial	2,262	2,581	319
Agricultural Industrial	232	232	0
<i>Commercial, Professional, and Industrial Subtotal</i>	4,075	4,845	770
<i>PUBLIC LAND USES</i>			
Public/Quasi-Public	1,344	1,399	55
Park	726	698	-28
Open Space	471	447	-24
<i>Public Subtotal</i>	2,541	2,544	3
<i>OTHER LAND USES</i>			
Agriculture	4,004	4,004	0
Right-of-Way	179	179	0
Water	180	180	0
<i>Other Subtotal</i>	4,364	4,364	0

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<i>LAND USE DESIGNATION</i>	<i>PROPOSED PROJECT - GENERAL PLAN UPDATE (ACRES)</i>	<i>ALTERNATIVE D – PREVIOUS PROPOSED GENERAL PLAN (MARCH 2021) (ACRES)</i>	<i>DIFFERENCE</i>
<i>URBAN RESERVE</i>			
Urban Reserve – Very Low Density Residential	775	775	0
Urban Reserve – Low Density Residential	808	576	-232
Urban Reserve – Medium Density Residential	28	20	-8
Urban Reserve – High Density Residential	19	19	0
Urban Reserve – Business Industrial Park	302	700	398
Urban Reserve – Commercial	0	32	32
Urban Reserve – Industrial	694	321	-373
Urban Reserve – Open Space	4	0	-4
Urban Reserve – Park	18	16	-2
Urban Reserve – Public/Quasi-Public	30	1	-29
<i>Urban Reserve Subtotal</i>	<i>2,677</i>	<i>2,460</i>	<i>-217</i>
TOTAL	24,404	24,877	473

SOURCE: DE NOVO PLANNING GROUP, 2022.

GROWTH PROJECTIONS BY ALTERNATIVE

A summary of the growth projections, including population growth, housing units, and jobs, and the resultant job/housing balance for the project and each alternative is shown in Table 5.0-5.

As shown in Table 5.0-5, Alternative A would result in increased housing and job growth within the Manteca city limits when compared to existing conditions, but substantially less overall growth than all other alternatives. Under Alternative A at full buildout, there would be an increase over existing conditions in residential growth (approximately 26,152 dwelling units) and non-residential growth (approximately 24,541,050 square feet) within City limits. Under cumulative conditions, development in Planning Area combined under Alternative A would result in a population of 172,998 and 42,457 jobs. This is 11,951 less housing units, 38,005 less people, and 1,371 fewer jobs compared to the Proposed General Plan.

Alternative B would result in a total of 66,770 dwelling units, 212,329 persons, and 51,452 jobs at buildout. This is approximately 417 fewer housing units (a decrease of 6,176 single family units and an increase of 5,759 multi-family units) and 1,326 more residents when compared to the proposed General Plan Land Use Map. Nonresidential growth would be approximately 32,932,996 square feet, an increase of 4,219,274 square feet, and employment opportunities would be increased under this alternative, with approximately 7,623 more jobs created within the Planning Area when compared to the proposed General Plan.

Alternative C would result in approximately 66,490 housing units at buildout. This is approximately 137 fewer housing units, including an increase of 5,850 single family units and a decrease of 5,713 multi-family units, within the Planning Area when compared to the proposed General Plan Land Use Map. Non-residential growth would include approximately 33,326,546

square feet, an increase of approximately 4,612,934 square feet, and employment opportunities would increase under this alternative, with approximately 28,151 fewer jobs created within the Planning Area when compared to the proposed General Plan. Under full buildout conditions, this alternative would result in a total population within the Planning Area of approximately 211,438, which is slightly more than the total population projection of 211,003 under the proposed General Plan.

Alternative D would result in approximately 64,900 housing units at buildout. This is approximately 1,453 more housing units, which reflects an increase of 5,673 single family units and a reduction of 7,126 multi-family units within the Planning Area when compared to the proposed General Plan Land Use Map. Non-residential growth would include approximately 35,458,437 square feet, an increase of approximately 6,744,825 square feet, and employment opportunities would increase under this alternative, with approximately 10,701 more jobs created within the Planning Area when compared to the proposed General Plan. Under full buildout conditions, this alternative would result in a total population within the Planning Area of approximately 206,381, which is slightly less than the total population projection of 211,003 under the proposed General Plan.

TABLE 5.0-5 GROWTH PROJECTIONS BY ALTERNATIVE

ALTERNATIVE	SINGLE-FAMILY UNITS	MULTI-FAMILY UNITS	DWELLING UNITS	POPULATION	JOBS
<i>EXISTING CONDITIONS</i>					
Existing Conditions (City)	23,697	4,553	28,250	89,835	16,381
<i>NEW GROWTH</i>					
Proposed General Plan	20,891	17,212	38,103	121,168	27,448
Alternative A: Existing General Plan/No Project	19,202	6,950	26,152	83,163	23,979
Alternative B: Residential and Balanced Employment Growth	27,067	11,453	38,520	122,494	35,071
Alternative C: Increased Intensity Residential and Balanced Employment Growth	26,741	11,499	38,240	121,603	35,599
Alternative D: Previous Proposed Project (March 2021)	26,564	10,086	36,650	116,546	37,969
<i>TOTAL BUILDOUT GROWTH: EXISTING PLUS NEW GROWTH</i>					
Proposed General Plan	44,588	21,765	66,353	211,003	43,829
Alternative A: Existing General Plan/No Project	42,899	11,503	54,402	172,998	42,457
Alternative B: Residential and Balanced Employment Growth	50,764	16,006	66,770	212,329	51,452
Alternative C: Increased Intensity Residential and Balanced Employment Growth	50,438	16,052	66,490	211,438	51,980
Alternative D: Previous Proposed Project (May 2021)	50,261	14,639	64,900	206,381	54,530

SOURCE: DE NOVO PLANNING GROUP, 2022.

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LAND USE DESIGNATIONS BY ALTERNATIVE

A summary of the land use designations by acreage associated with the Proposed General Plan Update and with each alternative is provided in Table 5.0-6.

TABLE 5.0-6: LAND USE DESIGNATIONS BY ALTERNATIVE

LAND USE DESIGNATION	PROPOSED PROJECT (ACRES)	ALTERNATIVE A (ACRES)	CHANGE	ALTERNATIVE B (ACRES)	CHANGE	ALTERNATIVE C (ACRES)	CHANGE	ALTERNATIVE D (ACRES)	CHANGE
<i>RESIDENTIAL LAND USES</i>									
Very Low Density Residential	492	944	452	491	-1	491	-1	446	-46
Low Density Residential	8,274	7,436	-838	8,611	337	8,565	291	8,495	221
Medium Density Residential	679	356	-323	613	-66	619	-60	575	-104
High Density Residential	470	421	-49	478	8	477	7	418	-52
<i>Residential Subtotal</i>	<i>9,914</i>	<i>9,157</i>	<i>-757</i>	<i>10,193</i>	<i>279</i>	<i>10,152</i>	<i>238</i>	<i>9,934</i>	<i>20</i>
<i>MIXED USE LAND USES</i>									
Commercial Mixed Use	673	568	-105	585	-88	585	-88	570	-103
Downtown	160	0	-160	160	0	160	0	160	0
<i>Mixed Use Subtotal</i>	<i>832</i>	<i>568</i>	<i>-264</i>	<i>745</i>	<i>-87</i>	<i>745</i>	<i>-87</i>	<i>730</i>	<i>-102</i>
<i>COMMERCIAL, PROFESSIONAL, AND INDUSTRIAL LAND USES</i>									
Business Professional	83	14	-69	101	18	107	24	126	43
Business Industrial Park	295	208	-87	773	478	787	492	714	419
Commercial	1,203	5	-1,198	1,169	-34	1,187	-16	1,192	-11
General Commercial	0	895	895	0	0	0	0	0	0
Neighborhood Commercial	0	178	178	0	0	0	0	0	0
Light Industrial	0	1,051	1,051	0	0	0	0	0	20
Heavy Industrial	0	690	690	0	0	0	0	0	0
Industrial	2,262	0	-2,262	1,951	-311	1,951	-311	2,581	319
Agricultural Industrial	232	0	-232	232	0	232	0	232	0
<i>Commercial, Professional, and Industrial Subtotal</i>	<i>4,075</i>	<i>3,041</i>	<i>-1,034</i>	<i>4,226</i>	<i>151</i>	<i>4,264</i>	<i>189</i>	<i>4,845</i>	<i>770</i>
<i>PUBLIC LAND USES</i>									
Public/Quasi-Public	1,344	1,160	-184	1,405	61	1,405	61	1,399	55
Park	726	580	-146	734	8	745	19	698	-28
Open Space	471	447	-24	447	-24	452	-19	447	-24
<i>Public Subtotal</i>	<i>2,541</i>	<i>2,187</i>	<i>-354</i>	<i>2,586</i>	<i>45</i>	<i>2,602</i>	<i>61</i>	<i>2,544</i>	<i>3</i>
<i>OTHER LAND USES</i>									
Agriculture	4,004	3,944	-60	5,915	1,911	4,004	0	4,004	0
Right-of-Way	179	135	-44	179	0	179	0	179	0
Water	180	0	-180	180	0	180	0	180	0

<i>LAND USE DESIGNATION</i>	<i>PROPOSED PROJECT (ACRES)</i>	<i>ALTERNATIVE A (ACRES)</i>	<i>CHANGE</i>	<i>ALTERNATIVE B (ACRES)</i>	<i>CHANGE</i>	<i>ALTERNATIVE C (ACRES)</i>	<i>CHANGE</i>	<i>ALTERNATIVE D (ACRES)</i>	<i>CHANGE</i>
<i>Other Subtotal</i>	4,364	4,079	-285	6,275	1,911	4,364	0	4,364	0
<i>URBAN RESERVE</i>									
Urban Reserve – Very Low Density Residential	775	590	-185	111	-664	775	0	775	0
Urban Reserve – Low Density Residential	808	1,307	499	0	-808	576	-232	576	-232
Urban Reserve – Medium Density Residential	28	20	-8	0	-28	20	-8	20	-8
Urban Reserve – High Density Residential	19	0	-19	0	-19	19	0	19	0
Urban Reserve – Commercial Mixed Use	0	201	201	0	0	0	0	0	0
Urban Reserve – Business Industrial Park	302	412	110	261	-41	594	292	700	398
Urban Reserve – Commercial	0	0	0	0	0	32	32	32	32
Urban Reserve – General Commercial	0	38	38	0	0	0	0	0	0
Urban Reserve – Industrial	694	0	-694	0	-694	717	23	321	-373
Urban Reserve – Light Industrial	0	36	36	0	0	0	0	0	0
Urban Reserve – Open Space	4	0	-4	0	-4	0	-4	0	-4
Urban Reserve – Park	18	67	49	7	-11	16	-2	16	-2
Urban Reserve – Public/Quasi-Public	30	12	-18	0	-30	1	-29	1	-29
Urban Reserve – Agriculture	0	1,734	1,734	0	0	0	0	0	0
Urban Reserve	0	955	955	0	0	0	0	0	0
<i>Urban Reserve Subtotal</i>	2,677	5,372	2,695	379	-2,298	2,750	73	2,460	-217
TOTAL	24,404	24,404	0	24,404	0	24,877	473	24,877	473

5.3 ENVIRONMENTAL ANALYSIS

The environmental analysis of the project alternatives provided on the following pages is divided into two parts. The first alternatives analysis addresses Alternatives A, B, and C, and provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR.

The analysis addresses Alternative D at a greater level of detail than Alternatives A through C. The Alternative D analysis addresses Alternative’s D’s potential level of significance against each of the impact statements contained in Chapters 3.1 through 3.16 of this Draft EIR, at a level of detail comparable to the analysis prepared for the proposed project in Chapters 3.1 through 3.16. This

greater level of comparison is to assist readers in understanding the difference between the 2021 Draft General Plan (Alternative D) and the Revised Draft General Plan (proposed project).

Following the analysis of each alternative, Table 5.0-27 summarizes the comparative effects of each alternative.

The primary difference between the proposed General Plan and Alternatives B and C are the Land Use Maps associated with each of these alternatives. The goals, policies, and actions contained in the proposed General Plan would also apply and be implemented under Alternatives B and C, except where specifically identified in the description of the alternative. Modifications to goals and policies proposed under Alternatives B and C generally correspond to the changes to the Land Use Map. Therefore, changes to the Land Use Map are the main variables that may increase or decrease the severity of one or more of the significant environmental impacts identified in this Draft EIR. It is important to note, however, that all of the Land Use Maps, across all of the Alternatives analyzed in this EIR, include essentially the same Planning Area, with the exception of Alternative A excluding the area north of Roth Road and west of Airport Way.

Throughout the preparation of the General Plan Update, the City Council, Planning Commission, and General Plan Advisory Committee all expressed a desire and commitment to ensuring that the General Plan not only reflect the community's values and priorities, but also serve as a self-mitigating document and avoid significant environmental impacts to the greatest extent feasible. To further this goal of crafting a self-mitigating General Plan, the environmental analysis contained in this Draft EIR was completed concurrently with the development of the General Plan elements and Land Use Map in order to foster informed decision making regarding the Land Use Map and the General Plan goals, policies, and actions as they were being developed. As the Land Use Map was crafted, refined, and revised throughout the course of the General Plan Update, changes were made on a continuous basis in order to incrementally and substantially reduce potentially significant environmental impacts that were identified. The result of this approach and this process is a proposed General Plan Land Use Map that has reduced potentially significant impacts to the environment, while still meeting the project objectives identified by the City of Manteca.

As demonstrated in the discussions below, Alternative B is the environmentally superior alternative as it is the most effective in terms of overall reductions of impacts compared to the proposed General Plan and all other alternatives, while still meeting all of the project objectives.

Aesthetics and Visual Resources

As described in Chapter 3.1 (Aesthetics and Visual Resources) impacts related to Aesthetics were found to be less than significant. Manteca is mostly urbanized with commercial, residential, and industrial uses concentrated along the Highway 99 and Highway 120 corridors and other major roadway corridors and residential neighborhoods occupying most other developed areas. Therefore, development would generally occur on either vacant, infill parcels, or the undeveloped land outside the City limits within the Planning Area. Much of the undeveloped land within the Planning Area surrounding the urbanized portion of Manteca is predominantly farmland and rural

residential uses. The introduction of new and more intense development into previously undisturbed areas or areas that have been historically used for agricultural operations may result in potentially significant impacts to scenic resources or result in the degradation of the city's visual character. Additionally, new development may result in changes to the skyline throughout the city.

Alternative B would result in a similar development pattern to the proposed General Plan and Alternative C; however, Alternatives B and C would provide for an increase in acreages dedicated for residential land uses, mixed use land uses, commercial, professional, and industrial land uses, and public land uses compared to the proposed General Plan. Alternative C would result in an increase in the urban reserve overlay, while Alternative B would result in a decrease in urban reserve, resulting in less land for future urban development under Alternative B. Alternative C would expand the Urban Reserve overlay in the northern portion of the Planning Area to include 23 additional acres of land designated Industrial by the proposed General Plan while also adding 292 acres of Business Industrial Park from the overlay. The net change to the Urban Reserve overlay under Alternative B would result in 2,298 fewer acres within the overlay when compared to the proposed General Plan, while Alternative C would increase the Urban Reserve overlay by 73 acres. Alternative B would also designate an additional 1,911 acres of land for Agriculture land uses and does not plan for the long-term potential urbanization of these lands. While the increase in the Urban Reserve overlay under Alternative C would preserve rural and agricultural land within the outskirts of the Planning Area for development beyond the proposed General Plan, it would allow for urbanization of these areas while Alternative B would preserve these areas for agricultural use.

The proposed General Plan would allow for less nonresidential development than is currently allowed by all other alternatives with the exception of Alternative A, while Alternative B would allow for the greatest residential growth. Compared to the proposed General Plan, Alternative B would provide for 417 more dwelling units, but 4,219,274 less square feet of nonresidential development. As shown in Table 5.0-2, Alternative B would designate approximately 279 additional acres of land for Residential uses within the Planning Area, consisting of one less acre of Very Low Density Residential, 337 more acres of Low Density Residential, 66 fewer acres of Medium Density Residential, and eight more acres of High Density Residential. Conversely, the proposed General Plan designates approximately 311 additional acres Industrial and 34 additional acres Commercial but 18 fewer acres Business Professional and 478 less acres Business Industrial Park than Alternative B, which would lead to more intense nonresidential development, particularly in relation to building heights and footprints, under Alternative B. However, Alternative B provides for more planned development and less long-term potential for residential and non-residential growth in comparison to the Proposed General Plan and Alternative C as Alternative B provides for a more compact urban form by focusing growth within residential and non-residential designations by reducing the Urban Reserve overlay significantly and increasing the Agriculture designation.

Based on the above, the proposed General Plan would lead to less intense development and a smaller development footprint than would occur under Alternative A and C. Therefore, visual

impacts under Alternative C would be slightly increased compared to the Proposed General Plan. Alternative B would have an equal Planning Area compared to the proposed General Plan (24,404 acres), but would reduce the land designated with the Urban Reserve overlay. The reduced Urban Reserve overlay under Alternative B would result in less land dedicated for future development of urban uses compared to the proposed General Plan. Overall, Alternative B's significant application of the Agriculture designation would allow preserve agricultural open space and limit the overall extent of urbanization in comparison to Alternatives A and C, resulting in better aesthetic impacts than Alternatives A and C. It is noted that development under both Alternative B and Alternative C would be subject to policies and measures establishing design and aesthetic requirements that would reduce impacts associated with aesthetics, lighting, and glare. As shown in Table 5.0-1, 5.0-4, and 5.0-5, Alternative A (No Project Alternative) would allow for the least amount of residential and nonresidential development than the proposed General Plan. Alternative A and would provide the smallest development footprint at full buildout due to its Urban Reserve overlay containing over 2,000 more acres than the proposed General Plan and Alternative C; however, Alternative A would have less open space (1,971 fewer acres designated Agriculture) than Alternative B. Therefore, both Alternatives A and B may have slightly reduced impacts to aesthetics and visual resources.

Agriculture and Forest Resources

As described in Impact 3.2-1 of Chapter 3.2 (Agriculture and Forest Resources), the proposed General Plan would result in significant and unavoidable impacts related to the conversion of farmlands, including Prime Farmland and Unique Farmland, to non-agricultural use.

All Project Alternatives would result in General Plan land use designations that would result the loss of Important Farmlands; however, when compared to the proposed General Plan, Alternatives A and C would result in less development on Important Farmlands at full buildout due to increases in the Urban Reserve overlay. Specifically, Alternative A would provide for 2,695 additional acres within the Urban Reserve when compared to the proposed General Plan and Alternative C would provide for 73 additional acres. Alternative B would reduce the Urban Reserve overlay by 2,298 acres and would increase the Agriculture designation by 1,911 acres compared to the proposed General Plan, providing for the most significant amount of land to be retained as Agriculture in comparison to the proposed project and all other alternatives. According to Figure 3.2-1 in Chapter 3.2, the majority of land within the Urban Reserve overlay of Alternatives A (see Figure 5.0-1), B (see Figure 5.0-2), and C (see Figure 5.0-3) is Prime Farmland and Farmland of Statewide Importance. Impacts would be reduced under Alternative A and slightly reduced under Alternative C. Impacts to agriculture resources, including farmland conversion impacts, would be most reduced under Alternative B as it provides for the most significant long-term agricultural uses. However, this impact would remain significant and unavoidable under all of the Alternatives.

Air Quality

As described in Chapter 3.3 (Air Quality), the proposed General Plan implementation would result in significant and unavoidable impacts to air quality.

As stated in Chapter 3.3, existing VMT in Manteca is approximately 1,784,908. Manteca has an existing population of approximately 84,800 and an existing jobs base of approximately 16,862 jobs. Full buildout of the proposed General Plan could generate up to 211,003 total residents (121,168 new residents) and generate up to 27,448 total jobs (43,829 new jobs), resulting in a VMT of 4,213,635. Implementation of the proposed General Plan would result in an approximately 150% increase in citywide VMT, with a commensurate 150% increase in combined population and jobs. Therefore, the growth rate associated with the proposed General Plan is comparable to the VMT increase associated with it. Moreover, the proposed General Plan includes a range of goals and policies that cover the full breadth of air quality issues as recommended in the applicable air quality plans.

Table 5.0-7 compares projected VMT to the projected service population for the proposed General Plan and each of the alternatives.

TABLE 5.0-7: VMT ANALYSIS BY ALTERNATIVE

	<i>EXISTING CONDITIONS</i>	<i>PROPOSED PROJECT (BUILDOUT)</i>	<i>ALT. A (BUILDOUT)</i>	<i>ALT. B (BUILDOUT)</i>	<i>ALT. C (BUILDOUT)</i>	<i>ALT. D. (BUILDOUT)</i>
Service Population (Population + Employment)	106,216	254,832	215,455	263,781	263,418	260,911
Total VMT	1,784,908	4,213,635	3,855,205	4,322,566	4,344,174	4,384,963
Increase in Service Population		140%	103%	148%	148%	146%
Increase in VMT		136%	116%	142%	143%	146%
VMT per Service Population	16.8	16.5	17.9	16.4	16.5	16.8

As shown in Table 5.0-7, under Alternative A, the growth in VMT and service population would be less than the Proposed General Plan. However, Alternative A would have a greater increase in VMT in comparison to the increase in service population (a per capita VMT of 17.9 compared to 16.5 under the proposed project). Under Alternatives B and C, the growth in VMT and service population growth would be greater than the Proposed General Plan. However, both Alternative B and Alternative C would have a reduction in VMT growth in comparison to the increase in service population and Alternative B would have an improved VMT per service population while Alternative C’s VMT per service population would be comparable to the Proposed General Plan. Therefore, Alternative B would slightly improve air quality and VMT on a per capita basis. Although Alternative C would result in a comparable VMT per service population in comparison to the Proposed General Plan, Alternative C would have a worse overall increase in VMT leading it to be slightly worse than the proposed General Plan. Although health risks associated with the truck traffic anticipated within the City of Manteca through buildout of the proposed General Plan were less than significant, as described in Chapter 3.3, Alternative A would have a decrease in Industrial and Business Industrial Park uses which would reduce the amount of toxic air contaminants (TACs) associated with heavy truck traffic in comparison to the proposed General Plan. While Alternatives B and C would have an overall increase in the total Business Industrial

Park and Industrial uses, there would be reduction in Industrial uses under each of these alternatives and the increase in Business Industrial Park uses would provide for better transitions related to heavy truck uses, due to the threshold that any increase beyond 20% warehouse, storage, and distribution uses be accompanied by an increase in setbacks (transition area) of 20 feet per each additional 10% of warehouse, storage, and distribution uses. Therefore, the shift to focusing on the Business Industrial Park designation over the Industrial designation in Alternatives B and C would reduce the exposure to toxic air contaminants (TACs) associated with heavy truck traffic in comparison to the proposed General Plan by providing for increased separation between uses relying on heavy truck traffic and sensitive receptors. The Proposed General Plan, Alternative B, and Alternative C all include a range of goals and policies that would reduce air quality and toxic air contaminant emissions, consistent with the Air District's Clean Air Plan and Alternatives B and C would also include measures to reduce impacts to air quality, consistent with those measures developed for the proposed General Plan. Therefore, impacts to air quality under Alternative B would be better when compared to the proposed General Plan, Alternative C would be similar overall, and Alternative A would be worse due to the increase in VMT per service population and the lack of goals, policies, and programs that promote improved air quality, reduced exposure of sensitive receptors to TACs, and lack of strategies to reduce VMT on a per capita basis.

Biological Resources

There are various biological resources, including habitat, that occur throughout the region. As described in Chapter 3.4 (Biological Resources) General Plan implementation would result in less than significant impacts to biological resources. Approval of the General Plan would not directly approve or entitle any development or infrastructure projects. However, implementation of the General Plan and Land Use Map would allow and facilitate future development in Manteca, which could result in adverse impacts to special-status plant and wildlife species, as well as sensitive natural habitat or wildlife movement corridors. Subsequent development projects will be required to comply with the General Plan and adopted Federal, State, and local regulations for the protection of special status plants and animals, including habitat. The City of Manteca has prepared the proposed General Plan to include numerous policies and actions intended to protect special status plants and animals, including habitat, from adverse effects associated with future development and improvement projects. The proposed General Plan and Alternatives B and C would include these updated biological policies and actions aimed at protecting biological resources (as described in detail in Chapter 3.4), while Alternative A would rely on the biological policies and actions within the existing General Plan.

Alternative B would also designate significantly more land in the combined Agriculture, Water, and Open Space categories (6,542 acres) in comparison to the Proposed General Plan (4,655 acres), Alternative A (4,391 acres), and Alternative C (4,636 acres). As previously stated, Alternatives A and C would increase the Urban Reserve overlay when compared to the proposed General Plan, ranging from 2,695 additional acres in Alternative A and approximately 73 additional acres in Alternative C. Alternative B would have an equal Planning Area compared to the proposed General Plan (24,404 acres), but would reduce the land designated with the Urban Reserve overlay by 2,298 acres. The reduced Urban Reserve overlay under Alternative B would

result in less land set aside for potential future development of urban uses compared to the proposed General Plan.

The greater amount of land in the Agriculture, Water, and Open Space designations in Alternative A and the expansion of the Urban Reserve in Alternatives A and C would preserve land within the overlay for future development outside of the current planning period, resulting in a smaller development footprint at full buildout when compared to the proposed General Plan. Therefore, impacts to biological resources under Alternatives A and C would be slightly reduced when compared to the proposed Project, which includes a larger development footprint at full buildout. Although Alternative A would provide for more Urban Reserve land, because Alternatives B and C would update conservation and biological resource policies consistent with the Proposed General Plan, impacts to biological resources would be slightly improved when compared to the Alternative A (No Project Alternative), which does not include an updated policy document. Impacts under Alternative B would be improved in comparison to Alternative C due to the long-term commitment to agriculture open space through the broader application of the Agriculture designation and implementation of updated policies consistent with the Proposed General Plan and Alternative C.

Cultural and Tribal Cultural Resources

As described in Chapter 3.5 (Cultural and Tribal Cultural Resources), General Plan implementation would result in less than significant impacts to cultural and tribal cultural resources.

As previously stated, Alternatives A and C would increase the Urban Reserve overlay when compared to the proposed General Plan, including 2,695 additional acres in Alternative A and 73 additional acres in Alternative C. Alternative B would have an equal Planning Area compared to the proposed General Plan (24,404 acres), but would reduce the land designated with the urban reserve overlay. The reduced urban reserve overlay under Alternative B would result in less land dedicated for future development of urban uses compared to the proposed General Plan. Additionally, Alternative B would designate an additional 1,911 acres of land for Agriculture land uses. The expansion of the Planning Area in Alternatives C and D would offset the increase in the Urban Reserve overlay under these alternatives to preserve land within the overlay for consideration for future development outside of the current planning period. Additionally, Alternatives A and B would have the same Planning Area as the proposed Project, resulting in the same potential for disturbance of cultural and tribal cultural resources as the proposed General Plan. Planning Area when compared to Alternatives C and D. Overall, impacts to cultural resources under Alternative C would be slightly increased when compared to the proposed Project, which includes a larger development footprint at full buildout. Because Alternatives B and C would update cultural resource policies to include new policies and actions related to agency coordination, consultation, and monitoring consistent with the proposed General Plan Policy Document, impacts to cultural resources would be slightly reduced when compared to the No Project Alternative which does not specifically address tribal cultural resources and does not include additional and updated policies related to the conservation and management of cultural resources.

Geology and Soils

As described in Chapter 3.6 (Geology and Soils), the proposed General Plan would result in less than significant impacts to Geology and Soils. All alternatives would result in similar development patterns. The proposed General Plan and Alternatives B and C would also include updated policies related to geologic hazards, including requirements for project reviews and standards for construction and building practices (as described in detail in Chapter 3.6).

All future projects within the Planning Area will be required to comply with state laws including the preparation of stormwater plans, and compliance with the provisions of the California Building Standards Code (CBSC), which requires development projects to perform geotechnical investigations in accordance with State law, engineer improvements to address potential seismic and ground failure issues, and use earthquake-resistant construction techniques to address potential earthquake loads when constructing buildings and improvements. Therefore, impacts related to Geology and Soils would generally remain the same under all alternatives. However, the updated policy document provides for additional policies and action related to geologic hazards and safety when compared to the existing General Plan, therefore the proposed General Plan and Alternatives B and C would be considered to be slightly superior to Alternative A.

Greenhouse Gases, Climate Change, and Energy

As described in Chapter 3.7 (Greenhouse Gases, Climate Change, and Energy), the proposed General Plan would result in less than significant impacts to Greenhouse Gases, Climate Change, and Energy.

As stated in Chapter 3.7, Manteca has an adopted Climate Action Plan, which is a Qualified GHG Reduction Plan. The CAP is designed to streamline environmental review of future development projects in the City of Manteca consistent with CEQA Guidelines Section 15183.5(b), as identified within the CAP itself. The proposed General Plan has been developed to be consistent with the adopted CAP, and to further the goals and implementation strategies identified in the CAP. Crucially, the proposed General Plan includes policy RC-4.3 and implementation measure RC-4a, which requires the City to continue to assess and monitor performance of greenhouse gas emissions reduction efforts, including progress toward meeting longer-term GHG emissions reduction goals for 2035 and 2050 by reporting on the City's progress annually, updating the Climate Action Plan and GHG inventory regularly to demonstrate consistency with State-adopted GHG reduction targets, including those targets established beyond 2020, and updating the GHG Strategy in the General Plan, as appropriate, which would include the 2030 and 2050 targets. Updates to the CAP would align the City's GHG reduction targets and associated reduction measures with the statewide GHG reduction targets established by AB 32, SB 32, and SB 375 and EOs S-03-05 and B-30-15.

Under Alternative B, the Planning Area would be developed with similar uses as the Proposed General Plan, but there would be an increase in residential uses, with 6,176 more single family and 5,759 fewer multi-family units and a decrease of approximately 7,623 jobs compared to the Proposed General Plan. The increase in residential uses focuses on single-family uses and density reductions typically increase per capita GHG emission levels. Similarly, under Alternative C, there

would be a decrease in residential units, with 5,850 more single family and -5,713 fewer multi-family, and an increase of approximately 8,151 jobs compared to the proposed General Plan. The increase in residential uses under Alternatives B and C focuses on single-family uses and density reductions typically increase per capita GHG emission levels. Under Alternative A, there would be a decrease in residential and employment uses and the density reductions and population may decrease the total greenhouse gas emissions and energy use, however, density reductions would generally be seen to increase per capita GHG emissions levels.

As shown in Table 5.0-7 (in the Air Quality discussion), Alternatives B and C would both result in an increase in total VMT, whereas Alternative A would result in a decrease in VMT. However, as further show in Table 5.0-7, Alternative A would have a worse per capita VMT (17.9) while Alternative B would result in an improved per capita VMT (16.4) in comparison to the proposed project (16.5) and Alternative C would have a comparable VMT compared to the proposed project. Further, the proposed project, Alternative B, and Alternative C would each result in improved VMT per service population (approximately 2% improvement) in comparison to existing conditions while Alternative A would result in a significantly worse VMT per service population (approximately 7% worse). As such, the greenhouse gas emissions impact is decreased slightly under Alternative B, comparable under Alternative C, and worse under Alternative A when compared to the proposed General Plan. Moreover, when compared to Alternative A, the Proposed General Plan, Alternative B and Alternative C all include a range of goals and policies that would reduce GHG emissions, including policies to encourage mixed-use development, complete streets, and multi modal improvements that would further reduce per capita GHG impacts. When compared to Alternative A, the proposed General Plan and Alternatives B and C present more opportunities for trip internalization and increased opportunities for walking and bicycling due to their proposed mix of higher density residential, office, retail, and other uses under increased mixed-use designations, including the Commercial Mixed Use and Downtown designations. Overall, impacts related to greenhouse gases, climate change and energy resources would also be increased under Alternatives B and C when compared to the No Project Alternative which does not include an updated policy document, or an update land use map that prioritizes mixed uses and higher densities and intensities.

Hazards and Hazardous Materials

As described in Chapter 3.8 (Hazards and Hazardous Materials), all impacts related to hazards and hazardous materials were found to be less than significant. The proposed General Plan and Alternative B would include updated policies and actions aimed at protecting the public from hazardous materials. These policies and actions in the General Plan would ensure that potential hazards are identified on a project site, that development is located in areas where potential exposure to hazards and hazardous materials can be mitigated to an acceptable level, and that business operations comply with Federal and State regulations regarding the use, transport, storage, and disposal of hazardous materials. The proposed General Plan also includes policies and actions to ensure that the City has adequate emergency response plans and measures to respond in the event of an accidental release of a hazardous substance (as described in detail in Chapter 3.8). Additionally, the proposed General Plan includes policies and actions for adequate

water supply and water flow availability, ensuring adequate emergency access, adequate fire protection services, fire safe design site standards, and ensuring public awareness regarding fire safety.

All Project alternatives would result in additional urban uses including commercial, industrial, residential, and mixed-use and public facility development. Additionally, all Project Alternatives would result in development patterns that include future development of urban uses in areas designated as Moderate FHSZ. Alternatives B and C would result in impacts comparable to those under the proposed General Plan. Alternative A would not include updated goals, policies, and programs to address hazards and hazardous materials, including programs to address exposure of sensitive receptors to intensive uses, and could result in worse impacts compared to the proposed General Plan. associated with hazards and hazardous materials.

Hydrology and Water Quality

Implementation of the proposed General Plan has the potential to result in the violation of water quality standards and waste discharge of pollutants into surface waters during both construction and long-term operations. Construction operations could result in temporary increases in runoff, erosion, sedimentation, soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas. The long-term operation of the proposed General Plan could result in long-term impacts to surface water quality from urban stormwater runoff and could enter groundwater or surface water systems. Additionally, the proposed General Plan would result in new impervious surfaces that could reduce rainwater infiltration and groundwater recharge. Mitigation measures incorporated into the project would reduce potential water quality impacts to a less than significant level. The General Plan would not place persons or structures in a flood hazard zone. As described in Chapter 3.9 (Hydrology and Water Quality), under all impact areas, implementation of the proposed General Plan would result in less than significant impacts related to Hydrology and Water Quality.

Under Alternative C, development would occur in a manner similar to the proposed General Plan within a highly urbanized environment, where flood control and water quality protection measures are well established and enforced. Alternative C provides for an expansion of the Urban Reserve overlay by 73 acres, which would result in these areas not being urbanized during the Planning Period, and Alternative A designates 2,695 more acres as Urban Reserve when compared to the proposed General Plan. Alternative B would have an equal Planning Area compared to the proposed General Plan (24,404 acres), but would reduce the land designated with the Urban Reserve overlay. The shift from the Urban Reserve overlay to an emphasis on increased Agriculture land would result in less land dedicated for future development of urban uses compared to the proposed General Plan.

Alternative C would also result in slight decreases to lands designated Agriculture, Open Space, and Water compared to the proposed General Plan. Alternative B would designate 1,911 more acres of land as Agriculture, Open Space, and Water than the proposed General Plan. Therefore, future development allowed under Alternative A and C would result in more land covered with impervious surfaces compared to the proposed General Plan, with Alternative B providing a

significantly higher amount of land preserved in Open Space, Water, and Agriculture designations compared to all other alternatives. Similar to the proposed General Plan, stormwater from future development would flow into the City's stormwater system via a network of drains, pipes, and detention basins. Future development projects allowed under all alternatives would be subject to National Pollution Discharge Elimination System requirements to develop temporary (construction) and permanent storm water control measures and incorporate these measures in order to mitigate the impacts of pollutants in storm water runoff. Because these alternatives would be required to implement improvements in order to manage and treat stormwater flows from the site, impacts related to water quality would be similar, but would be reduced under Alternative A due to the decrease in development but would be slightly increased under Alternative C due to the increase in development footprint compared to the proposed General Plan. Alternative B would result in reduced impacts due to the increase in land designated Agriculture, Open Space, and Water and the reduction in land dedicated for future development of urban uses compared to the proposed General Plan.

As described in Chapter 3.9 (Hydrology and Water Quality), when the proposed General Plan is eventually developed, the on-site impervious area would increase, leading to faster runoff rates. Alternative C would provide for an increased amount of impervious surface due to increases in the Urban Reserve overlay, Agriculture, Open Space, Water, and Park land uses when compared to the proposed General Plan, which would also result in slightly increased impacts related to rainfall infiltration and runoff during storm events as compared to the proposed General Plan. Alternative B would designate 1,911 more acres of land as Agriculture, Open Space, and Water than the proposed General Plan, which would result in decreased impacts related to rainfall infiltration and runoff during storm events as compared to the proposed General Plan.

As described in Chapter 3.9 (Hydrology and Water Quality), General Plan implementation has the potential to result in the discharge of pollutants into detention basins and storm drains, and would change the existing drainage pattern on the site, although these impacts are less than significant as a result of compliance with local, state, and federal regulations, as well as compliance with General Plan policies. The implementation of the updated General Plan policies aimed to enhance stormwater quality and infiltration as well as actions to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure off-site runoff is not increased as a beyond pre-development levels would not be included under Alternative A as this alternative does not include an update to the General Plan Policy Document. Therefore, this impact under the No Project Alternative may be slightly increased when compared to all other alternatives. Under Alternative C, these impacts would be similar as the proposed General Plan; however, the larger development footprint of Alternative C would increase the potential to result in a discharge of pollutants into detention basins and storm drains and change the existing drainage pattern of the site; therefore, impacts related to hydrology and water quality would be slightly worse under Alternative C when compared to the proposed General Plan due to its slightly reduced amount of lands designated Urban Reserve, Open Space, and Agriculture. On the other hand, Alternative B would have reduced impacts compared to the General Plan because Alternative B would designate 1,911 more acres of land as Agriculture, Open Space, and Water than the proposed General Plan and would reduce the land designated with the

Urban Reserve overlay. The reduced Urban Reserve overlay under Alternative B would result in less land dedicated for future development of urban uses compared to the proposed General Plan.

Land Use, Population and Housing

The proposed General Plan and Alternative B and C are long-range land use plans. As described in Chapter 3.10 (Land Use, Population, and Housing) all impacts related to land use, population, and housing were found to be less than significant under the proposed General Plan. As described previously, the proposed General Plan, Alternative B, and Alternative C would include adoption of the updated policy document consistent with the Proposed General Plan. Therefore, Alternative B would also result in the same impact level as the proposed General Plan. Alternative B would update current land use designations, and the City's General Plan would be more effective in promoting and encouraging more compact urban development and revitalization through mixed use development. In addition, numerous programs and policies within the proposed General Plan's policy document allow for greater consistency with applicable state and regional plans versus the existing General Plan, and would also promote efficiency in the delivery of urban services, and local agency coordination. Finally, the amount and typology of allowable development under the Proposed General Plan, Alternative B, and Alternative C has been crafted to meet City's Regional Housing Needs Allocation (RHNA) for future housing needs, with Alternatives B and C both providing more opportunities for the City to meet its fair share of regional housing needs. Continuation of the existing General Plan and its Housing Element may not enable the City to meet its RHNA obligation for new State certification by December 2023. In all, Alternative A (No Project Alternative) would result in less consistency with pertinent state and regional plans relative to the proposed General Plan and when compared to all other alternatives and would not implement changes in State law that address environmental concerns related to climate adaptation, environmental justice, and VMT. Alternatives B and C are both comparable to the proposed General Plan and would result in similar impacts related to land use planning and population/housing.

Mineral Resources

As described in Chapter 3.11, the proposed General Plan would result in less than significant impacts relating mineral resources. All of the alternatives, like the Proposed General Plan, accommodate development generally in the same areas, and these areas are, for the most part, either already urbanized or in an open space land use. Given that no mineral resources would be impacted by the proposed project, impacts associated with each of the alternatives would be the same and all would remain less than significant.

Noise

As described in Chapter 3.12 (Noise), and 4.0 (Other CEQA) the proposed General Plan would result in significant noise impacts related to increases in transportation noise. Buildout of the General Plan would contribute to transportation noise and in increases in traffic noise levels at existing sensitive receptors. The proposed General Plan, Alternative B, and Alternative C include General Plan Policies intended to minimize exposure to excessive noise, including noise associated

with increased traffic. Additional policies would ensure that new development mitigates potential noise impacts to the greatest extent feasible through incorporating the noise control treatments necessary to achieve acceptable noise levels and sets criteria for evaluating future increases in traffic noise levels.

Alternative A would result in less residential and employment growth than the proposed General Plan and result in less noise associated with development and operation of uses, as well as less traffic noise due to generally reduced traffic volumes on area roadways.

Alternative B would result in 417 more residential units and 4,219,274 more non-residential square feet, and 7,623 more jobs than the proposed General Plan. Alternative C would result in 137 more residential units, 6,744,825 more non-residential square feet and 8,151 more jobs than the proposed General Plan. Alternative B would identify more land as Agriculture and would reduce land developed for Urban Reserve, accommodating less long-term urbanization potential overall than the proposed General Plan. As shown in Table 5.0-7, both Alternatives B and C would result in slightly more VMT than the proposed General Plan and would have an associated increase in traffic volumes. However, Alternatives B and C would result in a different traffic pattern than the proposed General Plan, due to a shift in areas identified for urbanization and areas identified for preservation and conservation during the buildout of the General Plan.

As shown in Table 5.0-8, under Alternative A traffic volumes would generally decrease in comparison to the proposed General Plan. Under Alternatives B and C, there would be an overall increase in traffic volumes, including an increase in heavy truck traffic, but there would be a localized increase in traffic volumes on a number of area roadways, as shown in Table 5.0-8. These shifts in traffic patterns include, but are not limited to, increased traffic on Union Road north of Del Webb and south of Lovelace Road, which would increase by 2% under Alternative B and 5% under Alternative C, Union Road north of Lovelace Road, which would increase by 30% under Alternative B and 25% under Alternative C, and Lovelace Road east of Airport Way, which would increase by 15% under Alternative B and by 18% under Alternative C. Traffic increases, when compared to the proposed General Plan, under Alternatives B and C would include Lovelace Road east of Airport Way, which would increase by 22% under Alternative B and Alternative C, Louise Avenue west of Austin Road, which would increase by 3% under Alternative B and Alternative C, and Roth Road east of Airport Way, which would increase by 13% under Alternatives B and C. In general, there would be a slight increase in traffic and associated noise under Alternatives B and C. Alternatives B and C would continue to result in the potential for noise levels to exceed adopted standards and the increase in noise would remain significant and unavoidable under each alternative, as with the proposed General Plan.

As described in Chapter 3.12 (Noise), increases of 5 dB or greater occurring primarily along portions of Louise Ave, Airport Way, Union Ave, and Woodward Ave. Under both alternatives, sensitive receptors would continue to be exposed to excessive traffic noise. Therefore, this impact would remain significant and unavoidable under Alternatives B and C, and both alternatives would be similar to the proposed project in terms of the potential to generate noise above adopted standards.

5.0 ALTERNATIVES

TABLE 5.0-8: COMPARISON OF TRAFFIC VOLUMES BY ALTERNATIVE

SEGMENT	PROPOSED GENERAL PLAN		ALT. A		ALT. B		ALT. C		ALT. D	
	ADT	TRUCK %	ADT	TRUCK %	ADT	TRUCK %	ADT	TRUCK %	ADT	TRUCK %
1. Airport Way north of Daniels St	49,620	1%	43,960	3%	48,490	2%	48,500	2%	49,200	2%
2. Union Road south of Mission Ridge Drive	30,560	0%	30,590	0%	31,510	0%	31,660	0%	31,710	0%
3. Main St north of SR 120 WB ramps BY AXLE	40,190	6%	37,600	6%	38,490	6%	38,640	6%	39,090	6%
4. Moffat Blvd east of Powers Ave	10,420	2%	9,620	1%	10,470	1%	10,410	1%	10,550	1%
5. Spreckels Ave south of Phoenix Drive BY AXLE	23,550	8%	21,230	11%	22,980	8%	23,190	8%	23,110	8%
6. Austin Road south of Yosemite Ave	16,660	5%	10,360	4%	16,930	3%	16,630	3%	17,160	3%
7. Airport Way north of Crom St BY AXLE	44,630	3%	40,630	3%	43,260	4%	42,460	4%	43,190	4%
8. Union Road north of Crom St	35,810	0%	32,040	1%	37,810	1%	38,010	1%	38,190	1%
9. Main St south of Alameda St	24,410	2%	22,150	2%	24,880	1%	24,860	1%	25,000	1%
10. Cottage Ave south of Aldwina Lane	16,080	0%	11,380	0%	16,280	0%	16,300	0%	16,510	0%
11. Airport Way south of Northgate Drive	40,890	6%	30,140	10%	38,060	10%	38,470	10%	38,090	10%
12. Union Road south of Northgate Drive	29,550	0%	25,880	1%	32,250	1%	32,300	1%	31,840	1%
13. Main St north of Northgate Drive	19,870	3%	16,660	3%	21,350	2%	21,590	2%	21,660	2%
14. Airport Way north of Daisywood Drive	41,220	10%	34,570	13%	46,460	9%	47,020	9%	45,440	9%
15. Union Road north of Del Webb Blvd	19,680	0%	16,170	3%	21,260	1%	21,910	1%	20,810	1%
16. Airport Way south of SR 120 EB ramps	47,790	1%	49,830	0%	49,400	0%	48,930	0%	49,360	0%
17. Union Road south of SR 120 EB ramps	47,550	0%	53,630	0%	49,880	0%	50,090	0%	51,320	0%
18. Main St south of Quintal Road	52,320	1%	51,570	1%	53,890	1%	54,200	1%	54,760	1%
19. Austin Road south of Moffat Blvd	17,180	4%	13,090	4%	17,750	2%	17,780	2%	17,720	2%
20. Moffat Blvd north of Woodward Ave	14,520	6%	12,170	6%	14,290	7%	14,390	7%	14,540	7%
22. Woodward Ave west of Laurie Ave	20,080	0%	18,090	0%	19,900	0%	19,770	0%	20,400	0%
24. Yosemite Ave west of Airport Way BY AXLE	46,180	2%	40,050	3%	45,880	4%	45,360	4%	46,330	4%
25. Yosemite Ave west of Pacific Road	46,440	1%	44,070	1%	47,100	1%	47,040	1%	47,690	1%
26. Yosemite Ave west of Almond Ave	20,910	1%	19,980	1%	20,620	1%	20,530	1%	20,810	1%
27. Yosemite Ave west of Washington Ave	17,480	1%	18,170	1%	17,780	1%	17,780	1%	17,940	1%

ALTERNATIVES 5.0

SEGMENT	PROPOSED GENERAL PLAN		ALT. A		ALT. B		ALT. C		ALT. D	
	ADT	TRUCK %	ADT	TRUCK %	ADT	TRUCK %	ADT	TRUCK %	ADT	TRUCK %
28. Yosemite Ave east of Cottage Ave BY AXLE	37,030	5%	34,430	6%	36,040	4%	36,110	4%	36,460	4%
29. Yosemite Ave west of El Rancho Drive BY AXLE	79,700	4%	65,230	7%	81,160	5%	81,140	5%	81,490	5%
30. Louise Ave west of Airport Way BY AXLE	47,510	4%	42,920	6%	46,950	5%	47,620	5%	47,870	6%
31. Louise Ave east of Marguerite Ave	28,780	1%	25,040	1%	28,820	1%	28,970	1%	29,040	1%
32. Louise Ave west of Yvonne Ave	29,850	1%	25,050	1%	29,970	1%	30,200	1%	30,040	1%
33. Louise Ave east of Tulip Place	23,510	0%	17,290	1%	24,200	1%	24,420	1%	24,430	1%
34. Louise Ave west of Cottage Ave	21,180	0%	14,530	1%	21,870	1%	22,060	1%	22,140	1%
35. Lathrop Ave west of Airport Way BY AXLE	56,410	3%	50,580	4%	58,290	3%	59,110	3%	59,230	3%
36. Lathrop Ave west of Madison Grove Drive	54,260	4%	51,760	6%	53,140	4%	53,280	4%	54,300	4%
37. Lathrop Ave west of Sherwood Ave	55,950	4%	53,440	7%	55,960	4%	56,080	4%	57,290	4%
38. Daniels St west of Airport Way	34,600	0%	29,350	1%	33,910	0%	33,940	0%	33,740	0%
40. Woodward Ave west of Airport Way	11,270	0%	9,770	0%	12,380	0%	12,530	0%	12,630	0%
41. Union Road south of Woodward Ave	18,120	0%	15,520	1%	19,160	0%	19,270	0%	19,210	0%
42. Atherton Drive east of Union Road	20,880	0%	22,870	0%	22,840	0%	22,450	0%	23,660	0%
43. Main St (Manteca Rd) north of Sedan Ave	9,140	4%	4,280	10%	9,550	4%	9,510	4%	9,620	4%
44. Atherton Drive east of Main St	11,050	0%	9,860	1%	11,040	1%	11,050	1%	11,410	1%
45. Woodward Ave west of Moffat Blvd			-	-	-	-	-	-		
46. Louise Ave west of Austin Road	8,070	0%	5,190	3%	8,330	3%	8,570	3%	8,780	3%
47. Van Ryn Ave north of Atherton Drive	13,220	0%	10,910	1%	13,570	1%	13,680	1%	13,880	1%
Lovelace Road east of Airport Way	19,730	1%	12,110	16%	26,030	11%	26,730	11%	22,690	11%
Lovelace Road west of SR 99	31,880	5%	-	-	37,280	10%	39,390	10%	37,670	11%
Raymus Parkway east of Union Road			-	-	12,430	0%	12,520	0%		
Raymus Parkway east of Main St	12,360	0%	-	-	14,300	0%	14,210	0%	12,540	0%
Raymus Parkway east of Austin Road	13,870	0%	-	-	18,110	1%	18,170	1%	14,960	0%
French Camp Rd west of SR 99	18,770	2%	22,410	15%	22,920	19%	22,250	18%	18,730	1%

5.0 ALTERNATIVES

SEGMENT	PROPOSED GENERAL PLAN		ALT. A		ALT. B		ALT. C		ALT. D	
	ADT	TRUCK %	ADT	TRUCK %	ADT	TRUCK %	ADT	TRUCK %	ADT	TRUCK %
French Camp Rd east of SR 99	21,200	12%	7,510	12%	10,540	15%	10,620	15%	21,740	20%
Roth Rd west of Airport Way	8,010	9%	23,080	9%	32,600	13%	32,430	13%	10,290	16%
Roth Rd east of Airport Way	31,950	9%	-	-	17,710	11%	17,640	11%	32,700	15%
Loveland Rd east of Union Rd	16,750	10%	-	-	36,220	10%	38,000	10%	19,230	12%
Union Rd north of Loveland Rd	29,860	6%	11,620	13%	20,550	11%	19,700	9%	36,410	11%
SR 99 SB north of Loveland Rd	11,300	2%	59,850	11%	63,750	7%	64,500	7%	15,770	9%
SR 99 NB north of Loveland Rd	64,050	7%	60,670	11%	63,880	7%	64,820	7%	66,150	7%
SR 99 SB north of Yosemite Ave	64,350	7%	61,970	11%	72,220	6%	72,480	6%	65,970	6%
SR 99 NB north of Yosemite Ave	70,360	6%	58,780	11%	69,350	6%	69,830	6%	73,250	7%
SR 120 WB between McKinley Ave and Airport Way	66,240	6%	110,480	7%	114,680	5%	115,220	5%	70,210	7%
SR 120 EB between McKinley Ave and Airport Way	115,270	3%	111,180	7%	114,490	5%	115,000	5%	116,470	5%
SR 99 total north of Loveland Rd	114,100	3%	120,520	11%	127,630	7%	129,320	7%	116,230	5%
SR 99 total north of Yosemite Ave	128,400	7%	120,750	11%	141,570	6%	142,310	6%	132,120	6%
SR 120 total between McKinley Ave and Airport Way	136,600	6%	221,660	7%	229,170	5%	230,220	5%	143,460	7%

Public Services and Recreation

As described in Chapter 3.13, the proposed General Plan would result in less than significant impacts relating to public services and recreation. New development would place increased demands on public services such as police, fire, schools, parks, libraries, and other governmental services. The proposed General Plan includes policies and actions that require payment of impact fees to the City and other public agencies to ensure that additional development allowed does not have adverse impacts on these services and agencies.

Under Alternative B, the development area and development types would remain similar, however, there would be more jobs and non-residential development as well as increased population and dwelling units when compared to the Proposed General Plan. Comparatively, Alternative B would result in 7,623 more jobs, and 1,326 more residents than the Proposed General Plan and thus, impacts to public services (the demand for police, fire and other public services) would be slightly decreased. Overall, Alternative B would have a slightly increased impact to public services when compared to the proposed project and Alternative C, and a greater

impact when compared to Alternative A as Alternative A would include the least amounts of growth and subsequent demand for services or the need to additional services.

Under Alternative C, the development area and development types would remain similar, however, there would be more jobs and non-residential development as well as increased population and dwelling units when compared to the Propose General Plan. Comparatively, Alternative C would result in 8,151 more jobs, and 435 more residents than the Proposed General Plan and thus, impacts to public services (the demand for police, fire and other public services) would be slightly increased. Overall, Alternative C would have a slightly increased impact to public services when compared to the proposed project, and a greater impact when compared to Alternative A as Alternative A would include the least amounts of growth and subsequent demand for services or the need to additional services. However, Alternative C would result in slightly reduced impacts when compared to Alternative B, which allows the most residential and population growth.

Transportation and Circulation

As described in Chapter 3.14 (Transportation and Circulation), the proposed General Plan would result in significant and unavoidable impacts to transportation and circulation associated with VMT. As described in Chapter 3.14, the Proposed General Plan is not expected to result in VMT per dwelling unit exceeding 85 percent of baseline for residential-related land uses, the proposed General Plan is expected to result in VMT per employee exceeding 85 percent of baseline for employment-related land uses. This result is due to the change in the balance between jobs and housing in Manteca. In the future, fewer residents are expected to leave the City for employment, reducing VMT per dwelling unit, but more employees and customers are expected to travel to employment centers, increasing VMT per employee. If such employment growth does not occur, actual VMT per dwelling unit could be higher, and VMT per employee could be lower, than estimated for General Plan buildout conditions. This impact was determined to be significant and unavoidable for the Proposed General Plan, as discussed under Impact 3.14-1.

Table 5.0-9 compares VMT for the Proposed General Plan to VMT projected for each alternative, providing VMT by type of use and a VMT summary for VMT generated by households, residents, and service population. As discussed in Chapter 3.14, the threshold for identifying significant impacts associated with VMT is 15% less than baseline conditions. As shown in Table 5.0-9, the Proposed General Plan meets the standard for VMT per household and per resident, but exceeds the VMT standard for employment related growth by 52.1 miles per employee. The Proposed General Plan also results in VMT associated with the service population (population plus employees plus students) that is higher than the threshold.

While Alternative A would also result in VMT per household that meets the VMT per household threshold, Alternative A would have a worse employment VMT than the proposed General Plan, with an employment-related increase of 6.4%. Under Alternative A, overall VMT would be worse than the Proposed General Plan, with the VMT per service population, which takes into account resident, employment, and student trips, of 37.7, which is 7.1% higher than the General Plan VMT per service population (residents, employees, students) of 35.2.

TABLE 5.0-9: VMT PROJECTIONS BY ALTERNATIVE

CATEGORY	VMT PER	THRESHOLD ¹	PROPOSED GENERAL PLAN		ALTERNATIVE A			ALTERNATIVE B			ALTERNATIVE C			ALTERNATIVE D		
			VMT	OVER THRESHOLD	VMT	OVER THRESHOLD	CHANGE FROM GP	VMT	VMT	CHANGE FROM GP	VMT	OVER THRESHOLD	CHANGE FROM GP	VMT	OVER THRESHOLD	CHANGE FROM GP
<i>VMT BY TYPE OF USE</i>																
Single family	Household	88.2	78.3	(9.9)	71.9	(16.3)	-8.2%	75.8	(12.4)	-3.2%	75.8	(12.4)	-3.2%	75.5	-12.7	-3.6%
Multi family	Household	66.8	59.4	(7.4)	54.3	(12.5)	-8.6%	57.4	(9.4)	-3.4%	57.4	(9.4)	-3.4%	57.2	-9.6	-3.7%
Age restricted	Household	37.5	29.9	(7.6)	27.5	(10.0)	-8.0%	28.4	(9.1)	-5.0%	28.4	(9.1)	-5.0%	28.5	-9.0	-4.7%
Education	Employee	42.3	73.0	30.7	71.6	29.3	-1.9%	71.2	28.9	-2.5%	71.2	28.9	-2.5%	73.7	31.4	1.0%
Dining	Employee	158.1	226.1	68.0	229.7	71.6	1.6%	226.8	68.7	0.3%	227.5	69.4	0.6%	229.3	71.2	1.4%
Government	Employee	74.5	123.0	48.5	123.9	49.4	0.7%	120.6	46.1	-2.0%	121.5	47.0	-1.2%	124.6	50.1	1.3%
Industrial	Employee	64	75.2	11.2	76.6	12.6	1.9%	74.8	10.8	-0.5%	74.8	10.8	-0.5%	75.0	11	-0.3%
Medical	Employee	42.2	68.5	26.3	71.8	29.6	4.8%	67.2	25.0	-1.9%	67.8	25.6	-1.0%	70.0	27.8	2.2%
Office	Employee	27.5	41.7	14.2	43.4	15.9	4.1%	41.6	14.1	-0.2%	41.9	14.4	0.5%	43.1	15.6	3.4%
Retail	Employee	101.1	207.6	106.5	222.1	121.0	7.0%	201.0	99.9	-3.2%	203.7	102.6	-1.9%	211.9	110.8	2.1%
Agricultural	Employee	16.2	23.3	7.1	23.7	7.5	1.7%	23.0	6.8	-1.3%	23.1	6.9	-0.9%	24.0	7.8	3.0%
<i>VMT SUMMARY</i>																
All households	Household	80.6	70.0	(10.6)	65.9	(14.7)	-5.9%	69.4	(11.2)	-0.9%	69.4	(11.2)	-0.9%	69.3	-11.3	-1.0%
All residents	Resident	25.3	22.0	(3.3)	20.7	(4.6)	-5.9%	21.8	(3.5)	-0.9%	21.8	(3.5)	-0.9%	21.8	-3.5	-0.9%
All employment	Employee	69.9	122.0	52.1	126.1	56.2	3.4%	111.8	41.9	-8.4%	112.7	42.8	-7.6%	113.0	43.1	-7.4%
Service pop. (no students)	Residents + Employees	32.2	39.9	7.7	42.4	10.2	6.3%	39.7	7.5	-0.5%	40.1	7.9	0.5%	41.4	9.2	3.8%
Service pop. (with students)	Residents, Employees, + Students	28.6	35.2	6.6	37.7	9.1	7.1%	35.2	6.6	0.0%	35.5	6.9	0.9%	36.6	8	4.0%

SOURCE: FEHR & PEERS, 2022

1: THRESHOLD IS 15% LESS THAN THE BASELINE CONDITION (SEE CHAPTER 3.14)

Alternatives B and C were designed to increase the amount of job opportunities to improve the jobs-housing balance and improve housing opportunities, in order to increase the amount of employment-generated trips and to provide more opportunities for employees to live locally. Alternatives B and C have slightly improved household and resident VMT levels (decrease of 0.9%) when compared to the General Plan. Alternative B would have an 8.4% reduction in employment VMT when compared to the Proposed General Plan, while Alternative C would yield a 7.6% reduction. Overall service population (residents, employees, and students) VMT would not change significantly under Alternative B (total service population VMT of 35.2) in comparison to the Proposed General Plan and would worsen by 0.9 percent under Alternative C (total service population VMT of 35.5). Alternative A would result in a worse service population VMT than either Alternative B or C as well as worse than the proposed General Plan.

Alternative A would not include pedestrian, bicyclist, and transit goals, policies, and programs that are included in the proposed General Plan, Alternative B, and Alternative C to promote consistency with adopted plans for these modes, including the City's Active Transportation Plan, and Alternative A would have less emphasis on promoting non-single occupant vehicle modes of travel. While all alternatives would result in the potential for increased collisions, Alternative A would not include programs to ensure completion of a Vision Zero or Traffic Safety Plan, would not update the City's PFIP to include traffic safety improvements related to the Vision Zero Action Plan, and would not include installation of early detection systems to identify collision causes and encourage an early response. Overall, the transportation impacts are most reduced under Alternative B in comparison to the Proposed General Plan, and are also reduced under Alternative C. Alternative A would be worse than the Proposed General Plan and Alternatives B and C in terms of transportation and circulation impacts.

Utilities and Service Systems

As described in Chapter 3.15, the proposed General Plan would result in less than significant impacts relating Utilities.

New development would place increased demands on utilities.

Alternative A would result in less development than the proposed General Plan and would have the highest overall reduction in the demand for utilities and service systems, and the associated improvements, including new construction and expansion, to utilities and service systems facilities to serve existing and future development.

Alternatives B and C would provide for more growth than the proposed General Plan, both in terms of residential and non-residential uses as previously described. The total storm drainage runoff under Alternative C would be slightly increased when compared to the proposed General Plan, due to expansions to the overall development footprint at full buildout, similar to Alternative C. Under Alternative B, the Planning Area would be developed with a similar development patterns and uses as the Proposed General Plan; however, Alternative B would result in 279 more acres of residential uses, 87 fewer acres of mixed use, 61 more acres of public-quasi-public uses, and 345 fewer acres of industrial and commercial uses, resulting in an overall reduction of 339

acres of urbanized uses. Similarly, Alternative C would result in 238 more acres of residential uses, 87 fewer acres of mixed use, 61 more acres of public-quasi-public uses, and 327 fewer acres of industrial and commercial uses. The quantity of infrastructure installed would not be substantially reduced, as all alternatives would require similar development patterns, but the demand for utility services would be more under both Alternatives B and C, with Alternative C having a slightly lower overall demand for utilities and service systems compared to Alternative B and, thus. Therefore, both Alternatives B and C would have worse impacts related to utilities when compared to the proposed General Plan. However, compared to Alternative B, Alternative C would have slightly reduced impacts as this alternative provides for less urbanization and the need for utilities and service systems and associated improvements.

Wildfire

As described in Chapter 3.16, the proposed General Plan has no impacts related to wildfire risks associated with lands in or near State Responsibility Areas or lands classified as very high fire hazard severity zones. As described in Impact 3.16-1, the Planning Area is not located in or near any State Responsibility Areas and there are no lands classified as very high fire hazard severity zones within or near the Planning Area. Because all alternatives would result in the same (Alternatives B and C) or slightly reduced (i.e., Alternative A) Planning, Area the impact under all scenarios would remain the same.

Irreversible Effects

The proposed project would have a significant and unavoidable impact associated with irreversible environmental effects and adverse effects on human beings as described under Impact 4.17. Implementation of the proposed General Plan would result in a commitment of land uses designated for the foreseeable future. Land use and development consistent with the General Plan would result in irretrievable commitments by introducing development onto sites that are presently undeveloped. The conversion of agricultural lands to urban uses would result in an irretrievable loss of agricultural land, wildlife habitat, and open space. Additionally, development will physically change the environment in terms of aesthetics, air emission, noise, traffic, open space, and natural resources. These physical changes are irreversible after development occurs. Therefore, the proposed General Plan would result in changes in land use within the Planning Area that would commit future generations to these uses and that can expose human beings to adverse environmental effects.

During the planning horizon, development under Alternative A would be reduced most significantly in comparison to the proposed General Plan (see Tables 5.0-4 and 5.0-5). While Alternatives B and C would result in increases in housing and population growth compared to the Project, these alternatives would also result in an increase in non-residential square footage and increase in industrial and other jobs-generating uses. However, Alternative B would retain 1,911 more acres designated for Agriculture use than the proposed General Plan and would retain greater Agriculture lands than Alternatives A or C. Similarly, Alternative B would designate less land as Urban Reserve overlay than the proposed General Plan, Alternative A, and Alternative C, reducing the potential for conversion of these lands to urban uses and irreversible commitment

to urbanization on these lands in the long-term. Overall, both Alternatives B and C would result in an increased development footprint compared to the proposed General Plan and an increase in development potential and uses that could result in irreversible effects and adverse impacts. Alternatives B and C would use nonrenewable resources, including metals, stone, and other materials related to construction, and result in on-going demand for fossil fuels and other resources associated with energy production at levels greater than the proposed project associated with projected residential and non-residential growth. The associated irretrievable commitment of nonrenewable resources and permanent conversion of agricultural, and other undeveloped lands under Alternatives B and C would remain a significant impact. Given its commitment to a more compact urban form and long-term preservation of agricultural lands, Alternative B would have a similar impact to the proposed General Plan despite its potential for greater residential and non-residential growth. Alternative C would have slightly increased impact in comparison to the proposed General Plan due to increased development levels.

ALTERNATIVE D: PREVIOUS PROPOSED PROJECT (MARCH 2021)

Aesthetics and Visual Resources

IMPACT 3.1-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT HAVE A SUBSTANTIAL ADVERSE EFFECT ON A SCENIC VISTA (LESS THAN SIGNIFICANT)

As described in Section 3.1, Aesthetics and Visual Resources, while the Manteca Planning Area contains areas and viewsheds with scenic characteristics, such as views of open space and agricultural land, there are no officially designated scenic vista points in the Planning Area. Additionally, as described above, there are no officially designated scenic highways located in the vicinity of Manteca. The most significant visual features within or adjacent to the Manteca Planning Area are the San Joaquin River located to the west of the city and agricultural land and open space located in undeveloped areas within and around the city.

The City is mostly urbanized with commercial, residential, and industrial uses concentrated along the Highway 99 and Highway 120 corridors and other major roadway corridors, including Yosemite Avenue, Airport Way, Main Street, Union Road, Louise Avenue, and Atherton Drive and residential neighborhoods occupying most other developed areas. Much of the undeveloped land within the Planning Area surrounding the urbanized portion of Manteca is predominantly farmland, including alfalfa, orchards, row crops, and pasture, and rural residential uses. Agricultural lands have become important visual resources that contribute to the community identity of Manteca, and the Central Valley region.

Compared to the proposed General Plan, Alternative D would result in an increase of the total Planning Area by 473 acres, a decrease in the number of housing units by 1,453 units (which reflects an increase of 5,673 single family units and a decrease of 7,126 multi-family units within the Planning Area), and increased employment opportunities, with approximately 10,701 more jobs created. Overall, the increase in non-residential development potential would balance out the decrease in residential development potential under Alternative D.

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Furthermore, buildout under Alternative D and implementation of the Alternative D Land Use Map has the potential to result in new and expanded development along highway corridors with scenic values, even though these corridors are not officially designated as State Scenic Highways.

Future development would be required to be consistent with Alternative D. A central theme of both Alternative D and the Manteca General Plan is to preserve and protect the City's natural resources and scenic resources, including designating lands for agricultural use in the eastern and southern portions of the Planning Area and designating open space lands along Walthall Slough in the southwestern portion of the Planning Area. Other Alternative D and General Plan policies promote open space within the Planning Area, maintenance of the existing open space within the City, and visually-appropriate on-site design and amenities, such as design and maintenance standards for City amenities. Moreover, other policies promote the installation of specific visual features, such as context planning and design integration. Other policies are directed more generally at integrating land uses and visual quality between land uses, such as major corridors, walkability, building massing, and connectivity.

Both Alternative D and the Manteca General Plan have been developed to preserve expansive areas of open space and to ensure that new development is located in and around existing urbanized areas, thus ensuring that new development is primarily an extension of the existing urban landscape, and minimizes interruption of views of nearby visual features.

In addition to the policies and actions identified below that provide protection for open space resources and visually prominent resources in the Planning Area, a range of policies and actions contained in the Land Use and Community Design Elements are intended to maintain and enhance the overall visual character of the Planning Area, and to avoid the installation of structures or features that conflict with the character of the surrounding area. These policies seek to ensure that new development fits within the existing community setting and is compatible with surrounding uses, support the preservation and protection of the City's existing neighborhoods, maintain homes, structures, and property at high standards, and promote the City visually through design and physical features.

Both Alternative D and the Manteca General Plan include numerous policies and actions that would reduce the potential for an impact to occur related to this environmental topic. The implementation of the policies and actions listed below would ensure agricultural, riparian, and other open space uses are preserved consistent with the Land Use Map, that new urban residential and non-residential development in the Planning Area is located in and around existing urbanized areas and developed to be visually compatible with nearby agricultural and other open space resources. Additionally, the implementation of the policies and actions contained in the Land Use and Community Design Elements would further ensure that new development is designed in a way that enhances the visual quality of the community, compliments the visual character of the City, and that adverse effects on public views are minimized.

Similar to the proposed General Plan, implementation of Alternative D could lead to new and expanded urban and suburban development throughout the City and Planning Area, particularly in areas designated for residential, commercial, professional, industrial, mixed use, and

public/quasi-public uses by the Land Use Map (Figure 5.0-4). This new development may result in changes to the skyline throughout the Planning Area, which may obstruct or interfere with views of visual features surrounding the Planning Area. This alternative would increase the Planning Area, which could increase impacts related to significant visual features. Additionally, this alternative would increase the amount of housing units, particularly multi-family housing units which tend to have increased building stories, which could increase impacts related to significant visual features.

Overall, the impact on scenic vistas would be ***less than significant***, but the impacts would be worse than the proposed General Plan due to the increase in Planning Area and housing units.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

LU-1.2: *Promote land use compatibility through use restrictions, development standards, environmental review, and design considerations.*

LU-3.2: *Require the design of new residential development to be consistent with any applicable design guidelines, including complete streets standards, to ensure harmony with Manteca's unique character and compatibility with existing surrounding land uses.*

LU-3.8: *Where planned residential areas and expansions of existing residential neighborhoods interface with commercial, industrial, agricultural industrial, and other non-residential development, require that the proposed development be designed to maximize the compatibility between the uses and reduce any potentially significant or significant impacts associated with aesthetics, land use and planning, air quality, noise, safety, odor, and lighting that are identified through the California Environmental Quality Act (CEQA) review to less than significant.*

LU-5.4: *Ensure that employment-generating development, including industrial, warehouse, distribution, logistics, and fulfillment projects, does not result in adverse impacts (including health risks and nuisances), particularly to residential uses and other sensitive receptors, including impacts related to the location and scale of buildings, lighting, noise, smell, and other environmental and environmental justice considerations. When development is incompatible, require adequate buffers and/or architectural consideration to protect residential areas, developed or undeveloped, from intrusion of nonresidential activities that may degrade the quality of life in such residential areas.*

LU-10.1: *Promote the provision of both public and private open space within Manteca to provide visual contrast with the built-environment and to increase recreational opportunities for Manteca residents. Private open space shall not be considered for public use, other than as visual open space, and shall not be constrained from other uses as identified in the General Plan, unless as provided for by agreement with the land owner.*

LU-10.2: *Protect those environmental features that make Manteca an attractive and desirable place to live, work, play, and visit.*

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LU-10.3: *Protect significant open space and/or habitat areas for their ecological, educational, scenic, and recreational values.*

LU-11.1: *Protect agricultural land from urban development except where the General Plan Land Use Map has designated the land for urban uses.*

CD-1.1: *Require development projects to preserve positive characteristics and unique features of the site and consider the scale and character of adjacent uses.*

CD-1.2: *Maintain and enhance the city's compact and cohesive urban form.*

CD-1.3: *Recognize and enhance natural features and protect cultural and historic resources.*

CD-1.4: *Emphasize native, drought-tolerant landscaping as a fundamental design component, retaining mature landscaping when appropriate, to reinforce a sense of the natural environment and to maintain an established appearance.*

CD-1.5: *Require property owners to maintain structures and landscaping to high standards of design, health, and safety.*

CD-1.7: *Minimize the visual impacts of public and private communication, service, and utility facilities by requiring the provider to incorporate sensitive site design techniques, including, but not limited to the placement of facilities in less conspicuous locations, the undergrounding of facilities wherever possible, incorporating aesthetic features such as murals and civic enhancements, and the screening of facilities.*

CD-2.9: *Ensure that new development and redevelopment reinforces desirable elements of its neighborhood, district, or center, including architectural style, scale, and setback patterns.*

CD-2.10: *Encourage context-sensitive transitions in architectural scale and character between new and existing residential development.*

CD-2.12: *For infill development, incorporate context sensitive design elements that maintain compatibility and raise the quality of the area's architectural character.*

CD-2.16: *Design retention/detention basins to be visually attractive and well-integrated with any associated project and with adjacent land uses.*

CD-4.1: *Strengthen the positive qualities of the City's neighborhoods, districts, and centers.*

CD-4.3: *Strengthen the identity of individual neighborhoods, districts, and centers, including underserved areas, through the use of entry monuments, flags, street signs, themed streets, natural features, native landscaping, and lighting.*

CD-4.6: *Design neighborhoods, districts, and centers to provide access to adjacent open spaces.*

CD-4.7: *Design neighborhoods in new growth areas to incorporate the following characteristics:*

- *The edges of the neighborhood shall be identifiable by use of landscaped areas along major streets or natural features, such as permanent open space. Primary arterial streets may be used to define the boundaries of neighborhoods. The street system shall be designed to discourage high volume and high speed traffic through the neighborhood.*

- *Neighborhoods shall be not more than one mile in length or width.*
- *Each neighborhood shall include a distinct center, such as an elementary school, neighborhood park(s), and/or a mixed-use commercial area within a reasonable walking distance of the homes, approximately one-half mile.*
- *Each neighborhood shall include an extensive pedestrian and bikeway system comprised of complete street elements, including but not limited to sidewalks and bike lanes along streets and dedicated trails.*

CD-4.10: Strengthen the aesthetic and functional links between Downtown, the Civic Center, and other surrounding neighborhoods and districts.

CD-5.1: Encourage new and, when necessary, existing streets to improve walkability, bicycling, and transit integration and accessibility; strengthen connectivity; and enhance community identity through improvements to the public right-of-way such as sidewalks, street trees, parkways, curbs, street lighting, and street furniture.

CD-5.2: Require major arterial streets to include a common landscape theme that includes primary street trees, groundcover, sidewalks, bus shelters where required, and lighting applied throughout the City.

CD-5.3: Require the planting of street trees throughout the city to define and enhance the character of the street and the adjacent development and reduce the effects of urban heat exposure.

CD-5.4: To retain a visual reminder of the city's agricultural heritage, permit the use of non-fruiting species, such as flowering pear and plum, as secondary accent trees in landscape corridors along major streets.

CD-5.7: Limit uses that require soundwalls adjacent to the highways. Where soundwalls and other barriers surrounding neighborhoods, districts, and centers are necessary pursuant to the City's street standards and specifications, require the incorporation of aesthetic enhancements that reinforce the area's identity and present an attractive façade along the adjoining corridor. The first development to include construction of a sound wall shall set the design theme to be maintained along the arterial street until a roadway intersection.

CD-6.1: Encourage the mixing of land uses, where appropriate, but provide physical separation and/or buffers between incompatible land uses.

CD-6.2: Encourage the use of creative and functional (for example, stormwater capture) landscape design to create visual interest and reduce conflicts between different land uses.

CD-6.4: Avoid the blocking of public views by solid walls.

CD-6.5: Use open space, greenways, recreational lands, and water courses as community separators.

CD-8.1: To the extent possible, require new development to retain or incorporate visual reminders of the agricultural heritage of the community.

CD-9.1: Continue to encourage the use of murals and similar public art on buildings.

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CD-9.2: Incorporate public art along public sidewalks and within parking areas.

CD-9.3: Where feasible, include public art at key gateways and in major projects and public gathering places.

RC-9.1: Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.

RC-9.2: Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands.

Actions

LU-3e: Develop and periodically update design and performance standards that update and complement Chapter 17.58 of the Zoning Code to provide recommended design solutions available to proposed development projects to reduce impacts associated with aesthetics, noise, safety, odor, glare, and lighting, including land use conflicts between residential uses and nearby industrial and agricultural uses, in compliance with Chapter 17.58 of the Zoning Ordinance, as amended.

LU-5d: As part of the City's development review process, continue to ensure that employment-generating projects are designed to minimize conflicts with residential uses. Review of employment generating projects should ensure that the following design concepts are addressed in projects that abut residential areas:

- Appropriate building scale and/or siting;*
- Site design and features to protect residential uses and other sensitive receptors, developed or undeveloped, from impacts of non-residential development activities that may cause unwanted nuisances and health risks;*
- Site design and noise-attenuating features to avoid exposure to excessive noise due to long hours of operation or inappropriate location of accessory structures;*
- Site and structure design to avoid excessive glare or excessive impacts from light sources onto adjacent properties; and*
- Site design to avoid unnecessary loss of community and environmental resources (archaeological, historical, ecological, recreational, etc.).*

CD-1a: Consider implementing a program of local improvements, including, but not limited to, street tree planting, annual clean-up days, sidewalk installation and repair, and similar local activities, to enhance the visual quality of the city.

CD-4a: As part of the design review of development and capital projects, encourage the integration of civic, cultural, natural, art, and other themes that create a sense of place for each neighborhood, district, and center, and contribute to the overall character of the community.

CD-4b: Periodically review the Downtown Design Improvement Plan and Streetscape Improvement Program and update as necessary to maintain consistency with the General Plan, the City's Zoning regulations, and current best practice design solutions.

CD-4c: Approve development projects within new growth areas that support Downtown's identity as the city's central business district.

CD-5a: Establish a street tree program for residential neighborhoods.

CD-5b: Periodically review the Design Standards for Yosemite Avenue and Main Street and update as necessary to maintain consistency with the General Plan, the City's Municipal Code, and current best practice design solutions.

CD-5c: Continue to work with Caltrans on implementing a freeway and interchange native landscaping planting and maintenance program to improve the appearance of the community from SR 99 and SR 120.

CD-5d: Establish design guidelines for non-residential uses within 200 feet of SR 99 and SR 120. The guidelines should address the following concepts.

- *New office and commercial land use shall provide attractive landscaping, lighting, and signage adjacent to all buildings oriented to SR 99 or SR*
- *Encourage buildings that include attractive focal elements, such as a tower or articulated roofline in each non-residential development adjacent to SR 99 or SR 120 to serve as visual landmarks.*
- *New non-residential buildings oriented to SR 99 or SR 120 shall provide an attractive facade similar in articulation, and using the same materials and colors, as the primary facade of the building.*
- *Truck loading and refuse collection areas adjacent to SR 99 and SR 120 shall be screened from view.*
- *The landscape along SR 120 and SR 99 will reflect the natural character of the region in the selection of trees and groundcover.*

LU-10a: Preserve, enhance, and restore selected existing natural habitat areas.

IMPACT 3.1-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT SUBSTANTIALLY DAMAGE SCENIC RESOURCES, INCLUDING, BUT NOT LIMITED TO, TREES, ROCK OUTCROPPINGS, AND HISTORIC BUILDINGS, WITHIN A STATE SCENIC HIGHWAY (LESS THAN SIGNIFICANT)

No adopted State scenic highway is located in Manteca. Only one highway section in San Joaquin County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of Interstate 580 from Interstate 5 to Interstate 205. This route traverses the edge of the Coast Range to the west and Central Valley to the east. However, this officially designated scenic highway does not provide views of Manteca or the immediate surrounding areas, and there are no sections of highway in the Manteca vicinity eligible for Scenic Highway designation.

The County has designated one scenic route, which is Interstate 5 from the Sacramento County line south to Stockton and does not provide views of the Alternative D or proposed General Plan Planning Area.

5.0 ALTERNATIVES

Given that no adopted State scenic highways are located within the Alternative D Planning Area or provide views of the Alternative D Planning Area, State scenic highway impacts associated with Alternative D implementation would be *less than significant*, similar to the proposed General Plan.

IMPACT 3.1-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT, IN A NON-URBANIZED AREA, SUBSTANTIALLY DEGRADE THE EXISTING VISUAL CHARACTER OR QUALITY OF PUBLIC VIEWS OF THE SITE AND ITS SURROUNDINGS, OR IN AN URBANIZED AREA, CONFLICT WITH APPLICABLE ZONING AND OTHER REGULATIONS GOVERNING SCENIC QUALITY (LESS THAN SIGNIFICANT)

CEQA Guidelines Section 15387 defines an urbanized area as a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. The Alternative D Planning Area consists of the City of Manteca, which is an urbanized area, as well as various rural residential, agricultural, industrial, and open space uses located in the unincorporated and non-urbanized portion of the Alternative D Planning Area.

As described under Impact 3.1-3, the City is largely developed with commercial, residential, and industrial uses concentrated along the Highway 99 and Highway 120 corridors and other major roadway corridors, including Yosemite Avenue, Airport Way, Main Street, Union Road, Louise Avenue, and Atherton Drive and residential neighborhoods occupying most other developed areas. Much of the undeveloped land within the Planning Area surrounding the urbanized portion of Manteca is predominantly farmland, including alfalfa, orchards, row crops, and pasture, and rural residential uses.

Implementation of Alternative D could lead to new and expanded urban and suburban development throughout the City and Planning Area, particularly in areas designated for residential, commercial, professional, industrial, mixed use, and public/quasi-public uses by the Land Use Map (Figure 5.0-4).

Policies contained in the Alternative D policy document are intended to complement and further the intent of these provisions regulating scenic quality and resources, and any development occurring under the proposed General Plan would be subject to compliance with these guidelines, as well as the applicable regulations set forth in the Manteca Municipal Code. Alternative D includes policies and actions to promote land use compatibility, ensure that new development is consistent with design guidelines and compatible with surrounding uses, protect and conserve open space, agricultural, riparian habitats, and other scenic and natural resources, ensure that in-fill development is designed to be sensitive to surrounding uses, and to strengthen the qualities of the City's neighborhoods, districts, and downtown. The City's Zoning Ordinance (Manteca Municipal Code Title 17) is the primary tool meant to implement the General Plan. It consists of a zoning map defining the location of districts and code sections detailing requirements for each district. The Zoning Ordinance establishes specific, enforceable standards with which development must comply such as minimum lot size, maximum building height, minimum building setback, and a list of allowable uses. Zoning applies lot-by-lot, whereas the General Plan has a community-wide perspective. Provisions pertaining to visual resources such as site-specific design

standards, preservation of open space, landscaping, trees, and signs, are addressed. State law requires the City's Zoning Code to be consistent with the General Plan. Development as a result of both the proposed General Plan and Alternative D will be required to be consistent with the zoning code. The proposed General Plan and Alternative D would not substantially degrade the existing visual character or quality of public views of the SOI and its surroundings. Scenic quality-related impacts associated with Alternative D implementation would thus be *less than significant*, similar to the proposed General Plan. In order to further ensure that future development allowed under Alternative D would not degrade the existing visual character of the environment, the following policies and actions are included in this alternative.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies LU-1.2, LU-2.1, LU-3.2, LU-3.8, LU-5.4, LU-10.1, LU-10.2, LU-10.3, CD-1.1, CD-1.2, CD-1.3, CD-1.4, CD-1.5, CD-1.7, CD-2.9, CD-2.10, CD-2.12, CD-2.16, CD-4.1, CD-4.3, CD-4.6, CD-4.7, CD-4.10, CD-5.1, CD-5.2, CD-5.3, CD-5.4, CD-5.7, CD-5.8, CD-6.1, CD-6.2, CD-6.4, CD-6.5, CD-8.1, CD-9.1, CD-9.2, CD-9.3, RC-9.1, and RC-9.2 and Actions LU-3e, LU-5d, CD-1a, CD-4a, CD-4b, CD-4c, CD-5a, CD-5b, CD-5c, CD-5d, and LU-10a, as discussed under Impact 3.1-1.

IMPACT 3.1-4: ALTERNATIVE D IMPLEMENTATION WOULD NOT CREATE A NEW SOURCE OF SUBSTANTIAL LIGHT OR GLARE WHICH WOULD ADVERSELY AFFECT DAY OR NIGHTTIME VIEWS IN THE AREA (LESS THAN SIGNIFICANT)

The primary sources of daytime glare are generally sunlight reflecting from structures and other reflective surfaces and windows. Implementation of the proposed General Plan would introduce new sources of daytime glare into previously developed areas of the Planning Area and increase the amount of daytime glare in existing urbanized areas. The General Plan Land Use Map identifies areas for the future development of residential, commercial, industrial, recreational, and public uses. Such uses may utilize materials that produce glare. Daytime glare impacts would be most severe in the limited areas of the city that have not been previously disturbed, including the limited number of vacant parcels designated for urbanized land uses, and in areas that receive a high level of daily viewership.

The primary sources of nighttime lighting are generally from exterior building lights, street lights, and vehicle headlights. Exterior lighting around commercial and industrial areas may be present throughout the night to facilitate extended employee work hours, ensure worker safety, and to provide security lighting around structures and facilities. Nighttime lighting impacts would be most severe in areas that do not currently experience high levels of nighttime lighting. Increased nighttime lighting can reduce visibility of the night sky, resulting in fewer stars being visible and generally detracting from the quality of life in Manteca.

Future development would be required to be consistent with Alternative D, as well as lighting and design requirements in the Manteca Municipal Code, including Chapter 17.50. Alternative D contains policies and actions, listed below, related to the regulation and reduction of daytime glare and nighttime lighting, including requirements that residential, commercial, and employment-generating projects are designed to address lighting and glare impacts. LU-4b would require that new commercial projects do not generate excessive glare or light onto adjacent

properties and Action LU-5d would ensure that employment-generating projects are designed to minimize glare and light impacts onto residential uses. Action CD-8a would ensure that projects developing on the fringes of the City or in rural or agricultural areas are designed to be compatible with the area, including the city's light and glare standards. These actions would ensure that new development projects utilize appropriate building materials that do not result in significant increases in nighttime lighting or daytime glare.

Alternative D includes numerous actions that would reduce the potential for an impact to occur related to this environmental topic. Through the implementation of these actions during the development review process, the City can ensure that adverse impacts associated with daytime glare and nighttime lighting are ***less than significant***, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

LU-3.8: *Where planned residential areas and expansions of existing residential neighborhoods interface with commercial, industrial, agricultural industrial, and other non-residential development, require that the proposed development be designed to maximize the compatibility between the uses and reduce any potentially significant or significant impacts associated with aesthetics, land use and planning, air quality, noise, safety, odor, and lighting that are identified through the California Environmental Quality Act (CEQA) review to less than significant.*

LU-4.4: *Ensure that all commercial and other non-residential development is compatible with adjacent land uses, particularly residential uses, based upon the location and scale of buildings, lighting, and in conformance with the noise standards of the Safety Element. When development is incompatible, require commercial uses to provide adequate buffers and/or architectural features to protect residential areas, developed or undeveloped, from intrusion of nonresidential activities that may degrade the quality of life in such residential areas.*

LU-5.4: *Ensure that employment-generating development, including industrial, warehouse, distribution, logistics, and fulfillment projects, does not result in adverse impacts (including health risks and nuisances), particularly to residential uses and other sensitive receptors, including impacts related to the location and scale of buildings, lighting, noise, smell, and other environmental and environmental justice considerations. When development is incompatible, require adequate buffers and/or architectural consideration to protect residential areas, developed or undeveloped, from intrusion of nonresidential activities that may degrade the quality of life in such residential areas.*

CD-2.18: *Encourage the incorporation of lighting into signage design when appropriate in order to minimize glare and light spillage while accentuating the design of the signage.*

CD-8.4: *For lighting in rural areas of the community, provide:*

- *Minimal levels of street, parking, building, site and public area lighting to meet safety standards and provide direction.*

- *Directional shielding for all exterior lighting to minimize the annoyance of direct or indirect glare.*
- *Automatic shutoff or motion sensors for lighting features in newly developed areas.*

Actions

LU-3e: Develop and periodically update design and performance standards that update and complement Chapter 17.58 of the Zoning Code to provide recommended design solutions available to proposed development projects to reduce impacts associated with aesthetics, noise, safety, odor, glare, and lighting, including land use conflicts between residential uses and nearby industrial and agricultural uses, in compliance with Chapter 17.58 of the Zoning Ordinance, as amended.

LU-4b: As part of the City's development review process, ensure that commercial projects are designed to minimize conflicts with residential uses. Review of commercial projects should ensure that the following design concepts are avoided in projects that abut residential areas:

- *Inappropriate building scale and/or siting on the lot.*
- *Excessive glare or excessive impacts from light sources onto adjacent properties.*
- *Excessive noise generated from freight and waste management activities during night hours.*
- *Excessive air pollutant emissions from freight trucks and large expanses of parking lot areas.*

LU-5d: As part of the City's development review process, continue to ensure that employment-generating projects are designed to minimize conflicts with residential uses. Review of employment generating projects should ensure that the following design concepts are addressed in projects that abut residential areas:

- *Appropriate building scale and/or siting;*
- *Site design and features to protect residential uses and other sensitive receptors, developed or undeveloped, from impacts of non-residential development activities that may cause unwanted nuisances and health risks;*
- *Site design and noise-attenuating features to avoid exposure to excessive noise due to long hours of operation or inappropriate location of accessory structures;*
- *Site and structure design to avoid excessive glare or excessive impacts from light sources onto adjacent properties; and*
- *Site design to avoid unnecessary loss of community and environmental resources (archaeological, historical, ecological, recreational, etc.).*

CD-8a: Require projects developing on the fringe of the City or adjacent to agricultural or rural residential uses to be compatible with the character of the area, including implementing the City's

light and glare standards, use of appropriate materials and design, and siting of more intense uses away from rural and agricultural uses, where feasible.

Agriculture and Forest Resources

IMPACT 3.2-1: ALTERNATIVE D IMPLEMENTATION WOULD RESULT IN THE CONVERSION OF FARMLANDS, INCLUDING PRIME FARMLAND, UNIQUE FARMLAND, AND FARMLAND OF STATEWIDE IMPORTANCE, TO NON-AGRICULTURAL USE (SIGNIFICANT AND UNAVOIDABLE)

As shown on Figure 3.2-1 in Section 3.2, Agricultural Resources, the proposed General Plan Planning Area is designated as Urban and Built-Up (approximately 9,831.90 acres), Prime Farmland (4,636.38 acres), Farmland of Statewide Importance (9,948.09 acres), Farmland of Local Importance (1,016.53 acres), Semi-Agricultural and Rural Commercial Land and Vacant or Disturbed Land and Rural Residential (1,272.26 acres). As shown on Figure 5.0-5, the Alternative D Planning Area is designated as has Urban and Built-Up (approximately 9,848.32 acres), Prime Farmland (4,961.37 acres), Farmland of Statewide Importance (9,991.85 acres), Farmland of Local Importance (1,053.47 acres), Semi-Agricultural and Rural Commercial Land and Vacant or Disturbed Land and Rural Residential (1,342.80 acres). Therefore, Alternative D would result in a slight increase in Important Farmland conversion compared to the proposed General Plan.

While both the proposed General Plan Land Use Map and the Alternative D Land Use Map specifically identifies lands in Urban Reserve, Farmland, and Open Space that would not be converted to urban uses, it also designates a range of residential, commercial, industrial, public/quasi-public, and other uses that would convert farmland to urban and built up land. Therefore, Both Alternative D and the proposed General Plan have the potential to convert farmland to non-agricultural uses. However, both emphasize and prioritize infill development, logical growth extending outward from existing development, and establish Urban Reserve areas as part of its strategy to preserve and protect the greatest amount of agricultural land feasible. A large portion of the Alternative D Planning Area is currently zoned for urban land uses (i.e., residential single family, multi-family, public and institutional, mixed use and commercial) and proposes zoning changes similar to the existing land uses. Land uses surrounding the Planning Area consist of light industrial, commercial general, commercial, open space, single family residential, rural residential, single family residential agricultural, limited agriculture, exclusive agriculture, and other similar land uses. It is noted that while both the Alternative D and the proposed General Plan Land Use Maps include 4,004 acres of land dedicated Agriculture, Alternative D has a larger planning area and would have the potential to convert a greater amount of agricultural lands to non-agricultural uses and result in conflicts between agricultural and non-agricultural uses.

The Alternative D Planning Area does contain prime soils as defined by the California Department of Conservation, Agricultural Conservation and Mitigation Program. According to the Agricultural Conservation and Mitigation Program Farmland shall be considered prime farmland if it meets the definition of "prime agricultural land" in Government Code Section 51201. Government Code Section 51201 states that prime agricultural land means any of the following:

- (1) All land that qualifies for rating as class I or class II in the Natural Resource Conservation Service land use capability classifications.
- (2) Land which qualifies for rating 80 through 100 in the Storie Index Rating.
- (3) Land which supports livestock used for the production of food and fiber and which has an annual carrying capacity equivalent to at least one animal unit per acre as defined by the United States Department of Agriculture.
- (4) Land planted with fruit- or nut-bearing trees, vines, bushes, or crops which have a nonbearing period of less than five years and which will normally return during the commercial bearing period on an annual basis from the production of unprocessed agricultural plant production not less than two hundred dollars (\$200) per acre.
- (5) Land which has returned from the production of unprocessed agricultural plant products an annual gross value of not less than two hundred dollars (\$200) per acre for three of the previous five years.

A majority of the soils within the Planning Area have a capability classification higher than class 3 or 4 which does not qualify as prime agricultural land under the Agricultural Conservation and Mitigation Program. However, the majority of soils have a Storie index of 2, which correlates to a rating of 60 to 80, meaning soils within the Planning Area are suitable for most crops, but have minor limitations that narrow the choice of crops, have a few special management needs and could potentially qualify as prime agricultural land as defined by the Agricultural Conservation and Mitigation Program. In addition, a small portion of the planning area have a Storie index of 1, which correlates to a rating of 80 to 100, which qualifies as prime agricultural land as defined by the Agricultural Conservation and Mitigation Program.

Conversion of farmland as a result of both Alternative D and General Plan implementation is considered a ***potentially significant*** impact.

Both the proposed General Plan and Alternative D include policies and action, identified below, that are intended to reduce the conversion of farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, to non-agricultural uses. These include policies that encourage the development of vacant lands within City boundaries prior to conversion of agricultural lands and ensure that urban development near existing agricultural lands will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations. Overall, the policies and actions included in the proposed General Plan are intended to support and preserve the agricultural heritage of Manteca as development continues to occur within the Planning Area.

In addition to the policies and actions, the City implements other programs and regulations aimed at protecting agricultural lands throughout the Planning Area. For example, Manteca Municipal Code Chapter 13.42 includes the City's agricultural land mitigation requirements. In order to mitigate and offset the loss of valuable farmland resources, the City requires an agricultural mitigation fee for any discretionary land use entitlement which will permanently change

agricultural land over one acre in size within the City’s jurisdiction to any non-agricultural use. The in-lieu fee, paid to the City, is placed in a trust account and used solely for farmland mitigation purposes. The interest from funds in this account is also used for farmland protection purposes. These funds may be used for costs associated with establishing, monitoring, and managing farmland conservation easements.

The City also implements a Right-to-Farm ordinance. One purpose of this ordinance is to prevent the loss of agricultural resources and damage to the local agricultural industry by creating a presumption that proper agricultural operations may not be deemed a public nuisance. An additional purpose of this ordinance is to promote a good neighbor policy by requiring notification to purchasers and users of property near agricultural operations of the inherent inconveniences associated with such operations.

Both the proposed General Plan and Alternative D would accommodate development that would result in the conversion of farmlands within the Planning Area to non-agricultural uses; Alternative D has a larger Planning Area and would ultimately convert more lands than the proposed General Plan. The conversion of these farmlands requires mitigation through the City of Manteca Farmland Preservation Program, as described previously. While the above-identified impact would be reduced through preservation of agricultural land at a 1:1 ratio, the impact would not be reduced to a less-than-significant level due to the fact that active agricultural land would still be permanently converted to urban uses. Feasible mitigation measures do not exist to reduce the above impact to a less-than-significant level.

Alternative D would result in a slight increase in Important Farmland conversion compared to the proposed General Plan and the impact would remain **significant and unavoidable**, and would be slightly worse than the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

LU-4b: *As part of the City’s development review process, ensure that commercial projects are designed to minimize conflicts with residential uses. Review of commercial projects should ensure that the following design concepts are avoided in projects that abut residential areas:*

- *Inappropriate building scale and/or siting on the lot.*
- *Excessive glare or excessive impacts from light sources onto adjacent properties.*
- *Excessive noise generated from freight and waste management activities during night hours.*
- *Excessive air pollutant emissions from freight trucks and large expanses of parking lot areas.*

RC-8.1: *Support the continuation of agricultural uses on lands designated for urban use, until urban development is imminent.*

RC-8.2: *Provide an orderly and phased development pattern, encouraging the development of vacant lands within City boundaries prior to conversion of agricultural lands, so that farmland is not subjected to premature development pressure.*

RC-8.3: Encourage permanent agricultural lands surrounding the Planning Area to serve as community separators and continue the agricultural heritage of Manteca.

RC-8.4: Support and encourage the preservation of designated Agriculture lands, without placing an undue burden on agricultural landowners.

RC-8.5: Minimize conflicts between agricultural and urban land uses.

RC-8.6: Ensure that urban development near existing agricultural lands will not unnecessarily constrain agricultural practices or adversely affect the economic viability of nearby agricultural operations.

RC-8.7: Prohibit the fragmentation of agricultural parcels into small rural residential parcels except in areas designated for urban development in the Land Use Diagram.

RC-8.8: Encourage agricultural landowners in Manteca's Planning Area to participate in Williamson Act contracts and other programs that provide long-term protection of agricultural lands. Discourage the cancellation of Williamson Act contracts outside the Primary Urban Service Boundary line.

RC-8.9: Work with the Local Agency Formation Commission (LAFCO) on issues of mutual concern including the conservation of agricultural land through consistent use of LAFCO policies, particularly those related to conversion of agricultural lands and establishment of adequate buffers between agricultural and non-agricultural uses, and the designation of a reasonable and logical Sphere of Influence boundary for the City.

RC-8.10: Prohibit re-designation of Agricultural lands to other land use designations unless all of the following findings can be made:

- a. There is a public need or net community benefit derived from the conversion of the land that outweighs the need to protect the land for long-term agricultural use.*
- b. There are no feasible alternative locations for the proposed project that are either designated for non-agricultural land uses or are less productive agricultural lands.*
- c. The use would not have a significant adverse effect on existing or potential agricultural activities on surrounding lands designated Agriculture.*

RC-8.11: Require the development projects to reduce impacts on agricultural lands through the use of buffers, such as greenbelts, drainage features, parks, or other improved and maintained features, in order to separate residential and other sensitive land uses, such as schools and hospitals, from agricultural operations and from lands designated Agriculture.

RC-8.12: Work with agricultural landowners to improve practices that have resulted in adverse impacts to adjacent properties. Such practices include site drainage and flood control measures.

RC-8.13: Encourage agricultural landowners in Manteca's Planning Area to participate in Williamson Act contracts and other programs that provide long-term protection of agricultural lands. Discourage the cancellation of Williamson Act contracts outside the 20-Year Planning Horizon in the City's most recent Municipal Services Review.

5.0 ALTERNATIVES

RC-8.14: Support the procurement of expanded and additional water rights which provide for contractual supply reliability for agricultural use.

RC-8.15: Do not extend water and sewer lines to noncontiguous urban development that would adversely affect agricultural operations.

RC-8.16: Encourage small-scale food production, such as community gardens and cooperative neighborhood growing efforts, on parcels within the City limits, provided that the operations do not conflict with existing adjacent urban uses.

RC-8.17: Encourage Manteca Unified School District and the Delta Community College District to maintain school farm facilities and associated education programs.

RC-8.18: Encourage and support the development of new agricultural related industries featuring alternative energy, utilization of agricultural waste, biofuels, and solar or wind farms.

Actions

RC-8a: Continue to implement Chapter 8.24 (Right to Farm) of the Municipal Code in order to protect farming uses from encroaching urban uses and to notify potential homebuyers of nearby agricultural operations.

RC-8b: Consider impacts to agricultural lands and agricultural productivity when reviewing new development projects, amendments to the General Plan, and rezoning applications.

RC-8c: Amend Title 17 (Zoning) of the Municipal Code to include specific agricultural buffer requirements for residential and sensitive land uses (i.e., schools, day care facilities, and medical facilities) that are proposed near existing agricultural lands in order to protect the associated agricultural operations from encroachment by incompatible uses. Buffers shall generally be defined as a physical separation, depending on the land use, and may consist of topographic features, roadways, bike/pedestrian paths, greenbelts, water courses, or similar features. The buffer shall occur on the parcel for which a permit is sought and shall favor protection of the maximum amount of agricultural land.

RC-8d: Collaborate with water suppliers and wastewater treatment plant operators to increase the availability of treated or recycled water for agricultural purposes.

RC-8e: Apply the following conditions of approval where urban development occurs next to farmland.

- Require notifications in urban property deeds that agricultural operations are in the vicinity, in keeping with the City's right-to-farm ordinance.*
- Require adequate and secure fencing at the interface of urban and agricultural use.*
- Require phasing of new residential subdivisions; so as to include an interim buffer between residential and agricultural use.*
- Require a buffer, which may include a roadway and landscaped buffer, open space transition area, or low intensity uses, between urban uses and lands designated Agriculture on the Land Use Map.*

RC-8f: Work with San Joaquin County on the following issues:

- *The establishment and implementation of consistent policies for agricultural lands in the Planning Area that prioritize the preservation of agricultural lands and support ongoing agricultural activities.*
- *Pesticide application and types of agricultural operations adjacent to urban uses.*
- *Support the continuation of County agricultural zoning in areas designated for agricultural land use in the Area Plan.*

RC-8g: Develop a program to support for agricultural tourism, u-pick orchards and farms, and other agricultural activities that serve as a regional draw to Manteca and enhance its agricultural heritage.

IMPACT 3.2-2: ALTERNATIVE D IMPLEMENTATION WOULD CONFLICT WITH EXISTING ZONING FOR AGRICULTURAL USE, OR A WILLIAMSON ACT CONTRACT (SIGNIFICANT AND UNAVOIDABLE)

While lands within the City are not zoned for agricultural use, the Alternative D Planning Area includes lands zoned for agricultural use by San Joaquin County. These include lands that are designated as General Agriculture by the San Joaquin General Plan and zoned for Agriculture with minimum parcel size of 40 acres (AG-40). Further, there are lands adjacent the Planning Area that are zoned for agricultural use. Implementation of both the proposed General Plan and Alternative D may have the potential to conflict with lands zoned for agricultural uses.

As shown in Figure 5.0-6, the Alternative D Planning Area also includes lands that are under a Williamson Act Contract. Currently, the majority of the Williamson Act Contract land within the Planning Area are designated for agricultural land uses and will continue to be used for agricultural purposes under Alternative D. Under the proposed General Plan Land Use Map, the approximately 1,375 acres of Williamson Act Contract land are proposed for agriculture, very low density residential, business park industrial and industrial land uses. Under the Alternative D Land Use Map, the approximately 1,375 acres of Williamson Act Contract land are proposed for agriculture, very low density residential, business park industrial and industrial land uses. Therefore, the implementation of both the proposed General Plan and Alternative D could conflict with existing Williamson Act Contracts because non-agricultural uses, such as proposed business park industrial and industrial land uses to the north, are allowed on the existing Contract land. As a result, both the proposed project and Alternative D could result in a significant impact on existing Williamson Act Contract land.

Alternative D includes policies and actions, listed below, that are intended to reduce conflict between existing agricultural zones, or a Williamson Act Contract with new development as a result of the proposed general plan. These include policies which help explicitly minimize conflicts between agricultural and urban land uses. For example, one policy would encourage coordination LAFCO on issues of the conservation of agricultural land; promotes the enrollment in Williamson Act contracts; promotes the establishment of adequate buffers between agricultural and urban land uses; prohibits the redesignation of Agricultural lands to other land use designations unless specific findings are mad; and requires future development projects to reduce impacts on agricultural lands through the use of buffers, such as greenbelts, drainage features, parks, or other improved and maintained features.

5.0 ALTERNATIVES

The City's Right to Farm Ordinance is intended to reduce the occurrence of such conflicts between nonagricultural and agricultural land uses within the City through requiring the transferor of any property in the City to provide a disclosure statement describing that the City permits agricultural operations, including those that utilize chemical fertilizers and pesticides. Compliance with the City's Right to Farm Ordinance would ensure that projects include adequate measures to buffer project uses from adjacent agricultural uses and would reduce adverse effects on neighboring agricultural uses.

While the potential for conflicts between agricultural uses and non-agricultural uses would be minimized through the policies, actions, and requirements described above, the General Plan would allow the conversion of lands zoned for agricultural uses as well as approximately 1,375 acres of properties with Williamson Act Contracts to be developed with non-agricultural uses. This is considered a **significant and unavoidable** impact, similar to the proposed General Plan.

IMPACT 3.2-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT RESULT IN THE LOSS OF FOREST LAND OR CONVERSION OF FOREST LAND TO NON-FOREST USE (NO IMPACT)

The Alternative D Planning Area does not contain parcels designated as forest land and Alternative D does not propose uses that would convert existing forest land to non-forest use. Therefore, the project would result in **no impact** regarding the loss of forest land or conversion of forest land to non-forest use, similar to the proposed General Plan.

IMPACT 3.2-4: ALTERNATIVE D IMPLEMENTATION WOULD NOT INVOLVE OTHER CHANGES IN THE EXISTING ENVIRONMENT WHICH, DUE TO THEIR LOCATION OR NATURE, COULD RESULT IN CONVERSION OF FARMLAND TO NON-AGRICULTURAL USE (LESS THAN SIGNIFICANT)

As discussed in Impact 3.2-1, future development in accordance with Alternative D would result in the conversion of farmland to a non-agricultural use. Both the proposed General Plan and Alternative D would allow new urban uses that have the potential to conflict with existing agricultural operations, regardless of whether the operations are conducted on Williamson Act lands and lands zoned for agricultural use as discussed under Impact 3.2-2 above.

Future development in areas within the Planning Area may involve other changes in the existing environment that could result in the conversion of farmland. However, as mentioned before, both the proposed General Plan and Alternative D include policies which would reduce the impact of development resulting in the conversion of existing farmland. This includes policies which encourage coordination LAFCO on issues of the conservation of agricultural land; promotes the enrollment in Williamson Act contracts; promotes the establishment of adequate buffers between agricultural and urban land uses; prohibits the redesignation of Agricultural lands to other land use designations unless specific findings are mad; and requires future development projects to reduce impacts on agricultural lands through the use of buffers, such as greenbelts, drainage features, parks, or other improved and maintained features. In addition, the City's Right to Farm Ordinance is intended to reduce the occurrence of such conflicts between nonagricultural and agricultural land uses within the City through requiring the transferor of any property in the City to provide a disclosure statement describing that the City permits agricultural operations, including those that utilize chemical fertilizers and pesticides. Compliance with the City's Right to Farm Ordinance would ensure that projects include adequate measures to buffer project uses

from adjacent agricultural uses and would reduce adverse effects on neighboring agricultural uses.

Therefore, a ***less than significant*** impact involving other changes in the existing environment that could result in the conversion of farmland would result, similar to the proposed General Plan.

Air Quality

IMPACT 3.3-1: ALTERNATIVE D IMPLEMENTATION WOULD CONFLICT WITH OR OBSTRUCT IMPLEMENTATION OF THE APPLICABLE AIR QUALITY PLAN, OR RESULT IN A CUMULATIVELY CONSIDERABLE NET INCREASE OF CRITERIA POLLUTANTS (SIGNIFICANT AND UNAVOIDABLE)

As described in Section 3.3, Air Quality, CEQA requires lead agencies to determine whether a project is consistent with all applicable air quality plans. The SJVAPCD's most current air quality plans for PM, ozone, and carbon monoxide are (respectively) the *2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards*, the *2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard*, and the *2004 Revisions to the Carbon Monoxide Maintenance Plan*. These plans are also known as "Air Quality Attainment Plans". The SJVAPCD's Air Quality Attainment Plans include reduction targets and measures to promote air quality elements in county and city general plans as one of the primary indirect source programs. For example, the *2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standards plan* identifies that 5% annual reduction in PM_{2.5} is required annually. Separately, the *2020 Reasonably Available Control Technology (RACT) Demonstration for the 2015 8-Hour Ozone Standard plan* describes a variety of U.S. Environmental Protection Agency (EPA) control technique guidelines to limit volatile organic compounds, including specification requirements for vapor control systems at gasoline service stations, cutback asphalt, and solvent metal cleaning.

The proposed General Plan has been designed to not conflict these air quality plans, since the proposed General Plan would not conflict with any of the development-related control measures contained within these plans. The implementation of the development-related control measures contained within these plans are demonstrated to be sufficient to achieve the requirements under the FCAA as described in further detail below. Moreover, growth of the City of Manteca as allowed by the proposed General Plan would be incorporated into the modeling projections of the future versions of the applicable air quality plans, as applicable, as the air quality plans are required to be updated periodically over time to continue to demonstrate compliance with the requirements of the FCAA. Similar to the proposed General Plan, Alternative D would result in the potential to exceed population projections used for the adopted air quality plans.

Additionally, the San Joaquin Valley is in State-level non-attainment for ozone, PM₁₀, and PM_{2.5}. The SJVAPCD does not provide criteria pollutant thresholds for General Plans (such as the proposed Project). Thresholds of significance for criteria pollutants are established at the project-level by the SJVAPCD. As such, there is no programmatic threshold of significance established for criteria pollutants for which to compare the proposed General Plan.

This EIR explicitly acknowledges that Alternative D would allow notable amounts of new residential and non-residential growth in Manteca, as described in detail previously in this

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chapter. This new growth will undoubtedly result in increases in the emissions of criteria pollutants, most notably from mobile-source and area-source emissions increases associated with increased growth and development in Manteca. Additionally, the implementation of individual projects within Alternative D would have the potential to conflict with the SJVAPCD's thresholds of significance for criteria pollutants at the project-level.

The proposed Alternative D General Plan includes an extensive list of policies and actions that are specifically aimed at improving air quality. These policies and actions, which are provided below, limit impacts to air quality including by reducing the number and length of vehicle trips, supporting green and sustainable building development, promoting the use of renewable energy, and encouraging the conservation of resources. Development and infrastructure projects are also subject to the applicable SJVAPCD rules to reduce construction-related emissions. A non-exhaustive list of other SJVAPCD rules and regulations that apply to future development and infrastructure projects is described above, and includes (but is not limited to) SJVAPCD Rule 4002, Rule 4101, Rule 9510, Rule 9410, Rule 4641, and Rule 8021.

The policies and actions included throughout Alternative D cover the full breadth of air quality issues as recommended in the applicable air quality plans. If approval of Alternative D would cause the disruption, delay, or otherwise hinder the implementation of any air quality plan control measure, it may be inconsistent with the applicable air quality plans. Alternative D does not directly cause the disruption, delay, or otherwise hinder the implementation of any quality plan control measure; therefore, it is consistent with the applicable air quality plans. All future development and infrastructure projects within the Planning Area would be subject to the above-referenced General Plan goals, policies, and actions, which were adopted to reduce emissions and air quality impacts. However, Alternative D includes higher levels and rates of growth than those that would be facilitated under the existing Manteca General Plan. As such, total emissions levels associated with project buildout would increase, which may indirectly hinder the SJVAPCDs efforts to reduce total emissions of criteria pollutants.

The Planning Area is surrounded by a variety of existing urbanized and is bisected by two of the most heavily-travelled highway corridors in the San Joaquin Valley (SR 99 and SR 120). Alternative D emphasizes a compact, mixed use, transit-oriented development pattern that emphasizes alternative transportation access and multi-modal connectivity throughout the Planning Area and into the surrounding areas.

The following quantitative analysis describes VMT and population increases associated with implementation of Alternative D. Alternative D is intended to support and enhance jobs-generating uses within Manteca, and to assist the City in maintaining a balanced ratio of jobs to housing units within the city.

As part of the transportation analysis, Fehr & Peers (the traffic consultant) modeled VMT for the Planning Area for air quality analysis purposes.

As shown in Table 5.0-5, Manteca has an existing population of approximately 89,835. Full buildout of the Alternative D could generate up to 116,546 new residents, for a total population

of 206,381 at buildout. Manteca has an existing jobs base of approximately 16,381 jobs. Full buildout of the Planning Area under Alternative D could generate up to 37,969 new jobs in Manteca, resulting in 54,530 total jobs at buildout.

Table 5.0-10 shows the VMT measures per dwelling unit, per employee, per resident, and per service population for Alternative D buildout conditions, as well as for the baseline condition plus development projects. As shown in the table, Alternative D would result in increased VMT per dwelling unit for residential land uses and VMT per employee for industrial uses, and decreased VMT per employee for restaurant, office, and retail land uses as compared to the General Plan buildout conditions. It would also result in a five percent decrease in total VMT in comparison to the General Plan buildout conditions.

TABLE 5.0-10: VMT PER DWELLING UNIT AND PER EMPLOYEE FOR EXISTING CONDITION, BASELINE PLUS PROJECTS, PROPOSED GENERAL PLAN, AND ALTERNATIVE D

LAND USE	UNITS	EXISTING CONDITION (2019 BASELINE)	ALTERNATIVE D	PROPOSED GENERAL PLAN	PROPOSED GENERAL PLAN VS. EXISTING CONDITION	ALTERNATIVE D VS. PROPOSED GENERAL PLAN
Single family	VMT per dwelling unit	103.8	75.5	78.3	-25%	-4%
Multi family	VMT per dwelling unit	78.6	57.2	59.4	-24%	-4%
Age restricted	VMT per dwelling unit	44.1	28.5	29.9	-32%	-5%
Restaurant	VMT per employee ¹	186.0	229.3	226.1	22%	1%
Industrial	VMT per employee	75.3	75.0	75.2	-0.1%	-0.3%
Office	VMT per employee	32.4	43.1	41.7	29%	3%
Retail	VMT per employee	118.9	211.9	207.6	75%	2%
All residential	VMT per dwelling unit	94.8	69.3	70.0	-26%	-1%
All residential	VMT per resident ²	29.8	21.8	22.0	-26%	-1%
All employment	VMT per employee	82.2	113.0	122.0	48%	-7%
All land uses	VMT per service population ^{2,3}	36.7	41.4	39.9	5%	4%
Total VMT	VMT	3,755,100	9,921,000	9,376,561	150%	6%

NOTES: ¹VMT PER EMPLOYEE RATIOS INCLUDE ALL TRIPS BY EMPLOYEES, CUSTOMERS, AND DELIVERIES
²BASED ON 3.18 RESIDENTS/DWELLING UNIT (CALIFORNIA DEPARTMENT OF FINANCE, E-5 CITY/COUNTY POPULATION AND HOUSING ESTIMATES, 1/1/2020)
³SERVICE POPULATION INCLUDES RESIDENTS AND EMPLOYEES
⁴VMT INCLUDES FULL LENGTH OF ALL TRIPS WITH EITHER AN ORIGIN OR DESTINATION WITHIN THE PLANNING AREA
⁵NA = NOT APPLICABLE, METRIC FOR INFORMATIONAL PURPOSES ONLY

SOURCE: FEHR & PEERS, 2022

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Table 5.0-10 shows the total VMT generation under existing conditions and with the proposed General Plan and Alternative D. As indicated by footnote 4 in this table, this total VMT calculation considers the full length of travel generated by all land uses in the planning area. It shows an expected 150 percent increase in total VMT generation. Both the General Plan and Alternative D requires individual projects to be reviewed for compliance and adherence to SJVAPCD standards.

Alternative D would assist the city in achieving a more balanced jobs to housing ratio, and would increase opportunities for transit ridership in Manteca and the surrounding areas. The list below provides those Alternative D policies and actions that would work to further reduce criteria pollutant emissions, including reviewing projects for conformance with applicable air quality plans and regulations, reducing energy demands, and implementing methods to reduce vehicle miles traveled. Similar to the proposed General Plan, Alternative D policies ensure that individual projects will be reviewed for compliance and adherence to SJVAPCD standards. However, as with the proposed project, the potential for Alternative D to result in conflicts with air quality plans results in a **significant and unavoidable** impact.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

LU-3.9: *Locate residences and sensitive receptors away from areas of excessive noise, smoke, dust, odor, and lighting, and ensure that adequate provisions, including buffers or transitional uses, such as less intensive renewable energy production, light industrial, office, or commercial uses, separate the proposed residential uses from more intensive uses, including industrial, agricultural, or agricultural industrial uses and designated truck routes, to ensure the health and well-being of existing and future residents.*

LU-6.8: *Encourage the mixing of retail, service, residential, office, and institutional uses on the properties surrounding The Promenade to create a significant retail, employment, and cultural center south of Highway 120.*

LU-6.9: *Require mixed-use development to provide strong connections with the surrounding development and neighborhoods through the provision of pedestrian and bicycle infrastructure and facilities and, where feasible, site consolidation.*

LU-6.10: *Encourage the reuse of existing buildings within Downtown and in other developed locations designated for mixed-use development by utilizing the California Existing Building Code which provides flexibility in the retrofitting of buildings.*

LU-6.11: *Prioritize the revitalization of underutilized, deteriorated areas and buildings within Downtown and in other developed locations designated for mixed-use development through development incentives, public/private partnerships, and public investments.*

LU-8.5: *Policy Area 3 is the Austin Road Business Park and Residential Community Master Plan area, with boundaries as shown in Figure LU-6. The primary land uses within Policy Area 3 are envisioned to be a master planned residential community with high-quality parks, community-serving commercial uses, and residential development ranging from very low to high density residential in order to accommodate a broad range of housing types, including executive housing*

and workforce housing. Residential uses located near SR 99 and adjacent the railroad tracks should include appropriate transitions and buffers to address air quality and noise.

LU-9.1: Require future planning decisions, development, and infrastructure and public projects to consider the effects of planning decisions on the overall health and well-being of the community and its residents, with specific consideration provided regarding addressing impacts to disadvantaged populations and communities and ensuring disadvantaged communities have equitable access to services and amenities and to be conducted through an open and engaging process inclusive of community residents.

LU-9.2: As part of land use decisions, ensure that environmental justice issues related to potential adverse health impacts associated with land use decisions, including methods to reduce exposure to hazardous materials, industrial activity, vehicle exhaust, other sources of pollution, and excessive noise on residents regardless of age, culture, gender, race, socioeconomic status, or geographic location, are considered and addressed.

C-2.7: Provide access for bicycles and pedestrians at the ends of cul-de-sacs, where right-of-way is available, to provide convenient access within and between neighborhoods and to encourage walking and bicycling to neighborhood destinations.

C-2.8: Signals, roundabouts, traffic circles and other traffic management, calming, and safety techniques shall be applied according to industry standards at residential and collector street intersections with collector and arterial streets in order to allow bicyclists and pedestrians to travel more conveniently and more safely from one neighborhood to another.

C-2.15: Ensure that development and infrastructure projects are designed in a way that provides pedestrian and bicycle connectivity to adjacent neighborhoods and areas (such as ensuring that sound walls, berms, and similar physical barriers are considered and gaps or other measures are provided to ensure connectivity).

C-4.1: Through regular updates to the City's Active Transportation Plan, establish a safe and convenient network of identified bicycle and pedestrian routes connecting residential areas with schools, recreation, shopping, and employment areas within the city, generally as shown in Figure CI-2. The City shall also strive to develop connections with existing and planned regional routes shown in the San Joaquin County Bicycle Master Plan.

C-4.2: Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians by providing native and drought-tolerant shade trees and controlling traffic speeds by implementing narrow lanes or other traffic calming measures in accordance with the City Neighborhood Traffic Calming Program on appropriate streets, in particular residential and downtown areas.

C-4.3: Provide a sidewalk and bicycle route system that serves all pedestrian and bicycle users and meets the latest guidelines related to the Americans with Disabilities Act (ADA).

C-4.4: Provide bicycle parking facilities at commercial, business/professional and light industrial uses in accordance with Part 11 of the California Building Standards Code.

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C-4.5: Expand the existing network of off-street bicycle facilities as shown in the City's Active Transportation Plan to accommodate cyclists who prefer to travel on dedicated trails. Further, the City shall strive to develop: 1) a "city-loop" Class I bike path for use by both bicyclists and pedestrians that links Austin Road, Atherton Drive, Airport Way, and a route along or near Lathrop Road to the Tidewater bike path and its existing and planned extensions, and 2) an off-street bicycle trail extension between the Tidewater Bike Trail near the intersection of Moffat Boulevard and Industrial Park Drive to the proposed regional route between Manteca and Ripon.

C-4.6: Provide on-street Class II bike lanes, Class IV protected bike lanes, or off-street Class I bike paths along major collector and arterial streets whenever feasible.

C-4.7: Facilitate bicycle travel through residential streets through signage necessary to communicate the presence of Class III bicycle routes on residential streets that have sufficiently low volumes as to not require bike lanes or have narrower street cross sections that assist in calming traffic.

C-4.8: Provide sidewalks and/or walkways connecting to the residential neighborhoods, primary public destinations, major public parking areas, transit stops, and intersections with the bikeway system.

C-4.9: Provide sidewalks along both sides of all new streets in the City.

C-5.1: Encourage and plan for the expansion of regional bus service in the Manteca area.

C-5.2: Promote increased commuter and regional passenger rail service that will benefit the businesses and residents of Manteca. Examples include Amtrak, the Altamont Commuter Express (ACE), and high-speed rail.

C-5.3: Identify and implement means of enhancing the opportunities for residents to commute from residential neighborhoods to the ACE station or other transit facilities that may develop in the City.

C-5.4: Include primary locations where the transit systems will connect to the major bikeways and pedestrian ways and primary public parking areas in the Active Transportation Plan (see C-4a).

C-5.5: Encourage programs that provide ridesharing and vanpool opportunities and other alternative modes of transportation for Manteca residents.

C-5.6: Promote the development of park-and-ride facilities near I-5, SR 120, SR 99, and transit stations.

C-5.7: Maintain a working relationship between the City administration and the local management of the Union Pacific Railroad regarding expansion of freight and passenger rail service and economic development of the region.

C-5.8: Design future roadways to accommodate transit facilities, as appropriate. These design elements should include installation of transit stops adjacent to intersections and provision of bus turnouts and sheltered stops, where feasible.

C-5.9: Encourage land uses and site developments that promote public transit along fixed route public transportation corridors, with priority given to those projects that will bring the greatest increase in transit ridership.

C-5.10: Ensure that development projects provide adequate facilities to accommodate school buses, including loading and turn-out locations in multifamily and other projects that include medium and high density residential uses, and that the school districts are provided an opportunity to address specific needs associated with school busing.

C-5.11: As new areas and neighborhoods of the City are developed, fund transit and paratransit expansion (including capital, operations, and maintenance) to provide service levels consistent with existing development.

C-7.1: Encourage employers to provide alternative mode subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting, and work-at-home programs employee education and preferential parking for carpools/vanpools.

C-7.2: Require development projects that accommodate or employ 50 or more full-time equivalent employees to establish a transportation demand management (TDM) program that meets or exceeds applicable standards, including Air District requirements.

C-7.3: Partner with SJCOG on the Dibs program, which is the regional smart travel program, including rideshare, transit, walking, and biking, operated by SJCOG.

C-7.4: Require proposed development projects that could have a potentially significant VMT impact to consider reasonable and feasible project modifications and other measures during the project design and environmental review stage of project development that would reduce VMT effects in a manner consistent with state guidance on VMT reduction.

C-7.5: Evaluate the feasibility of a local or regional VMT impact fee program, bank, or exchange. Such an offset program, if determined feasible, would be administered by the City or a City-approved agency, and would offer demonstrated VMT reduction strategies through transportation demand management programs, impact fee programs, mitigation banks or exchange programs, in-lieu fee programs, or other land use project conditions that reduce VMT in a manner consistent with state guidance on VMT reduction. If, through on-site changes, a subject project cannot eliminate VMT impacts, the project could contribute on a pro-rata basis to a local or regional VMT reduction bank or exchange, as necessary, to reduce net VMT impacts.

C-7.6: Expand alternatives to driving by increasing opportunities to walk, bike, and use transit.

EF-2.3: Prioritize the development of employment-generating uses on sites with vacant buildings or on underutilized commercial, office, and industrial-designated parcels.

EF-2.9: Encourage mixed-use development on vacant and underutilized parcels along the North Main Street and Yosemite Avenue corridors, allowing flexible reaction to changing market conditions.

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CF-11.2: Implement and enforce the provisions of the City's Source Reduction and Recycling Program and update the program as necessary to meet or exceed the State waste diversion requirements.

CF-11.3: Reduce municipal waste generation by increasing recycling, on-site composting, and mulching, where feasible, at municipal facilities, as well as using resource efficient landscaping techniques in new or renovated medians and parks.

CF-11.4: Encourage residential, commercial, and industrial recycling and reuse programs and techniques.

CF-11.5: Coordinate with and support other local agencies and jurisdictions in the region to develop and implement effective waste management strategies and waste-to-energy technologies.

RC-5.1: Ensure that land use and circulation improvements are coordinated to reduce the number and length of vehicle trips.

RC-5.2: Encourage private development to explore and apply non-traditional energy sources such as co-generation, wind, and solar to reduce dependence on traditional energy sources.

RC-5.3: Require all new public and privately constructed buildings to meet and comply with construction and design standards that promote energy conservation, including the most current "green" development standards in the California Green Building Standards Code.

RC-5.4: Support expanded innovative and green building best practices including, but not limited to, LEED certification for all new development and retrofitting existing uses, and encourage public and private projects to exceed the most current "green" development standards in the California Green Building Standards Code.

RC-5.6: Encourage the conservation of petroleum products.

RC-6.1: Coordinate with the San Joaquin Valley Air Pollution Control District (Air District), San Joaquin Council of Governments, and the California Air Resources Board (State Air Board), and other agencies to develop and implement regional and county plans, programs, and mitigation measures that address cross-jurisdictional and regional air quality impacts, including land use, transportation, and climate change impacts, and incorporate the relevant provisions of those plans into City planning and project review procedures. Also cooperate with the Air District, SJCOG, and State Air Board in:

- *Enforcing the provisions of the California and Federal Clean Air Acts, state and regional policies, and established standards for air quality.*
- *Identifying baseline air pollutant and greenhouse gas emissions.*
- *Encouraging zero emission or alternative fuel for city vehicle fleets, when feasible.*
- *Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.*

RC-6.2: Minimize exposure of the public to toxic or harmful air emissions and odors through requiring an adequate buffer or distance between residential and other sensitive land uses and

land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, including but not limited to industrial, manufacturing, and processing facilities, highways, and rail lines and, where uses or facilities pose substantial health risks, ensure that a Health Risk Assessment is conducted to identify and mitigate exposure to toxic air contaminants.

RC-6.5: Require and/or cooperate with the Air District to ensure that burning of any combustible material within the City is consistent with Air District regulations to minimize particulate air pollution.

IMPLEMENTATION ACTIONS

LU-1b: Regularly review and revise, as necessary, the Zoning Code to accomplish the following purposes:

- Ensure consistency with the General Plan in terms of zoning districts and development standards;*
- Provide for a Downtown zone that permits the vibrant mixing of residential, commercial, office, business-professional, and institutional uses within the Central Business District;*
- Ensure adequate buffers and transitions are required between intensive uses, such as industrial and agricultural industrial, and sensitive receptors, including residential uses and schools; and*
- Provide for an Agricultural Industrial zone that accommodates the processing of crops and livestock.*
- Ensure that land use requirements meet actual demand and community needs over time as technology, social expectations, and business practices change.*

LU-6a: Consider implementing incentives to support developers who construct vertical mixed-use projects and/or who build housing above non-residential ground-floor uses within Downtown.

LU-6d: Promote the intensified use and reuse of existing suites above ground floors.

LU-9a: Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

LU-9c: Encourage and support local transit service providers, through input from residents and stakeholders, to increase and expand services for people who are transit-dependent, including seniors, persons with mobility disabilities, and persons without regular access to automobiles by improving connections to regional medical facilities, senior centers, and other support systems that serve residents and businesses.

C-1c: Develop a pedestrian, bicycle, and transit improvement plan for the Downtown area to facilitate implementation of level of service policy C-1.4. This plan will develop a list of multi-modal improvements in the Downtown area through an engaging process inclusive of community members and stakeholders to increase the viability and encourage the use of non-auto modes.

C-2b: When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for more safe travel by all modes that use streets, including autos,

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transit, pedestrians, and bicycles. Complete streets shall be developed in a context-sensitive manner. For example, it may be more appropriate to provide a Class I bike path instead of bike lanes along a major arterial. Pedestrian districts like Downtown Manteca or areas near school entrances should have an enhanced streetscape (e.g., narrower travel lanes, landscape buffers with street trees, etc.) to better accommodate and encourage pedestrian travel.

C-2f: Ensure that bicycle and pedestrian access is both provided and prioritized through providing openings to increase access where soundwalls and berms are located to minimize travel distances and increase the viability walking and bicycling.

C-2i: Pursue funding to improve and address areas of traffic, bicycle, and pedestrian hazards and conflicts with vehicular traffic movements.

C-4a: Periodically update the Active Transportation Plan through a process inclusive of community members and stakeholders to include all areas envisioned for development by this General Plan and to address pedestrian and bicycle facilities needed to provide a complete circulation system that adequately meets the needs of pedestrians and bicyclists.

C-4b: Utilize the standards set forth in the latest editions of the California MUTCD and American Association of State Highway and Transportation Officials (AASHTO) Green Book for improvement and re-striping of appropriate major collector and arterial streets to accommodate Class II bike lanes or Class IV protected bikeways in both directions, where sufficient roadway width is available. This may include narrowing of travel lanes.

C-4d: Add bicycle facilities whenever possible in conjunction with road rehabilitation, reconstruction, or re-striping projects.

C-4e: Update the City's standard plans to accommodate pedestrians and bicyclists, including landscape-separated sidewalks where appropriate, and to include bike lanes on collector and arterial streets, as defined by the Active Transportation Plan.

C-4f: Encourage and facilitate resident and visitor use of the bike trail system by preparing a map of the pedestrian and bike paths and implementing wayfinding signage.

C-4g: Update the standard plans to specify a set of roadways with narrower lanes (less than 12 feet) and pedestrian bulb-outs to calm traffic and increase pedestrian and bicycle comfort. These narrow lane standards shall be applied to appropriate streets (e.g., they shall not be applied to outside lanes on major truck routes) and new development.

C-5a: Periodically review transit needs in the city through a process inclusive of community members and stakeholders and adjust bus routes to accommodate changing land use and transit demand patterns. The City shall also periodically coordinate with the San Joaquin Regional Transit District to assess the demand for regional transit services.

C-5b: Explore a transit connections study that would identify improvements to connections and access to the existing ACE station, the Manteca Transit Center, and future planned transit stations.

C-5c: Update the City's standard plans to include the option for bus turnouts at intersections of major streets.

C-5d: Review and consider alternatives to conventional bus systems, such as smaller shuttle buses (i.e. micro-transit), on-demand transit services, or transportation networking company services that connect neighborhood centers to local activity centers with greater cost efficiency.

C-5e: Work with the school districts to identify and implement opportunities for joint-use public transit that would provide both student transportation and local transit service.

C-5f: Through the development review process, ensure that projects provide increased land use densities and mixed uses, consistent with the Land Use Element to enhance the feasibility of transit and promote alternative transportation modes.

C-5g: Along fixed route corridors, require that new development to be compatible with and further the achievement of the Circulation Element. Requirements for compatibility may include but are not limited to:

- *Orienting pedestrian access to transit centers and existing and planned transit routes.*
- *Orienting buildings, walkways, and other features to provide pedestrian access from the street and locating parking to the side or behind the development, rather than separating the development from the street and pedestrian with parking.*
- *Providing clearly delineated routes through parking lots to safely accommodate pedestrian and bicycle circulation.*

C-7a: Provide information about transit services, ridesharing, vanpools, and other transportation alternatives to single occupancy vehicles at City Hall, the library, on the City website, and through other channels.

C-7b: Develop TDM program requirements with consideration of addressing CEQA vehicle miles traveled impact analysis requirements (i.e., SB 743) in accordance with implementation measure C-1c. TDM programs shall include measures to reduce total vehicle miles traveled and peak hour vehicle trips. A simplified version of the Air District's Rule 9410 could be used to implement this measure.

C-7c: Coordinate with the San Joaquin Council of Governments on a Congestion/Mobility Management Program to identify TDM strategies to reduce VMT and mitigate peak-hour congestion impacts. Strategies may include: growth management and activity center strategies, telecommuting, increasing transit service frequency and speed, transit information systems, subsidized and discount transit programs, alternative work hours, carpooling, vanpooling, guaranteed ride home program, parking management, addition of general purpose lanes, channelization, computerized signal systems, intersection or midblock widenings, and Intelligent Transportation Systems.

*C-7d: Proposed development projects should consider the list of potential measures below. This list is not intended to be exhaustive, and not all measures may be feasible, reasonable, or applicable to all projects. The purpose of this list is to identify options for future development proposals, not to constrain projects to this list, or to require that a project examine or include all measures from this list. Potential measures, with possible ranges of VMT reduction for a project, include:**

- *Increase density of development (up to 10.75 percent)*
- *Increase diversity of land uses (up to 12 percent)*
- *Encourage telecommuting and alternative work schedules (up to 4.5 percent)*
- *Implement car-sharing programs (up to 5 percent)*
- *Implement parking management and pricing (up to 6 percent)*
- *Implement subsidized or discounted transit program (up to 0.7 percent)*

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- *Implement commute trip reduction marketing and launch targeted behavioral interventions (up to 3 percent)*

**Note: VMT reduction ranges based on Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association (2010), and new research compiled by Fehr & Peers (2020). Additional engineering analysis is required prior to applying reductions to specific projects. Actual reductions will vary by project and project context.*

C-7e: Partner with SJCOG, San Joaquin County, and neighboring cities to evaluate a potential regional VMT impact fee program, bank, or exchange.

C-7f: Implement the Active Transportation Plan and other Bikeway and Pedestrian Systems goals and policies (C-4).

C-7g: Expand transit service and increase transit frequency and implement Public Transit goals and policies (C-5).

RC-4a: Continue to assess and monitor performance of greenhouse gas emissions reduction efforts, including progress toward meeting longer-term GHG emissions reduction goals for 2035 and 2050 by reporting on the City's progress annually, updating the Climate Action Plan and GHG inventory regularly to demonstrate consistency with State-adopted GHG reduction targets, including those targets established beyond 2020, and updating the GHG Strategy in the General Plan, as appropriate.

RC-5a: Implement development standards and best practices that promote energy conservation and the reduction in greenhouse gases, including:

- *Require new development to be energy-efficient through passive design concepts (e.g., techniques for heating and cooling, building siting orientation, street and lot layout, landscape placement, and protection of solar access);*
- *Require construction standards which promote energy conservation including window placement, building eaves, and roof overhangs;*
- *Require all projects to meet minimum State and local energy conservation standards;*
- *Require best practices in selecting construction methods, building materials, project appliances and equipment, and project design;*
- *Encourage and accommodate projects that incorporate alternative energy;*
- *Encourage projects to incorporate enhanced energy conservation measures and other voluntary methods of reducing energy usage and greenhouse gas emissions; and*
- *Require large energy users to implement an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.*

RC-5b: Continue to review development projects to ensure that all new public and private development complies with or exceeds the California Code of Regulations, Title 24 standards as well as the energy efficiency standards established by the General Plan and the Municipal Code.

RC-5c: Develop a public education program to increase public participation in energy conservation.

RC-5d: Connect residents and businesses with programs that provide free or low-cost energy efficiency audits and retrofits to existing buildings.

RC-5e: Update the Municipal Code to incentivize the use of small-scale renewable energy facilities and, where appropriate, to remove impediments to such uses.

RC-5f: Cooperate with other agencies, jurisdictions, and organizations to expand energy conservation programs.

RC-5g: Explore alternative energy sources, including co-generation, active solar energy, and wind generation, and identify opportunities for alternative energy to be used in public and private projects.

RC-5h: Implement transportation measures, as outlined in the Circulation Element, which reduce the need for automobile use and petroleum products.

RC-6a: Work with the Air District to implement the Air Quality Management Plan (AQMP).

- *Cooperate with the Air District to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.*
- *Cooperate with the Air District and the State Air Board in their efforts to develop a local airshed model.*
- *Cooperate with the Air District in its efforts to develop a cost/benefit analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.*
- *Cooperate with the Air District and community organizations to promote public awareness of air quality issues.*

RC-6b: Review development, land use, transportation, and other projects that are subject to CEQA for potentially significant climate change and air quality impacts, including toxic and hazardous emissions and require that projects provide adequate, appropriate, and cost-effective mitigation measures reduce significant and potentially significant impacts. This includes, but is not limited to, the following:

- *Use of the Air District “Guide for Assessing and Mitigating Air Quality Impacts”, as may be amended or replaced from time to time, in identifying thresholds, evaluating potential project and cumulative impacts, and determining appropriate mitigation measures;*
- *Contact the Air District for comment regarding potential impacts and mitigation measures as part of the evaluation of air quality effects of discretionary projects that are subject to CEQA;*
- *Require projects to participate in regional air quality mitigation strategies, including Air District-required regulations, as well as recommended best management practices when applicable and appropriate ;*
- *Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *The use of energy efficient lighting (including controls) and process systems beyond Title 24 requirements shall be encouraged where practicable (e.g., water heating, furnaces, boiler units, etc.);*

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- *The use of energy efficient automated controls for air conditioning beyond Title 24 requirements shall be encouraged where practicable; and*
- *Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winds;*
- *The developer of a sensitive air pollution receptor shall submit documentation that the project design includes appropriate buffering (e.g., setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor;*
- *Identify sources of toxic air emissions and, if appropriate, require preparation of a health risk assessment in accordance with Air District-recommended procedures; and*
- *Circulate the environmental documents for projects with significant air quality impacts to the Air District for review and comment.*

***RC-6c:** Review area and stationary source projects that could have a significant air quality impact, either individually or cumulatively, to identify the significance of potential impacts and ensure that adequate air quality mitigation is incorporated into the project, including:*

- *The use of best available and economically feasible control technology for stationary industrial sources;*
- *All applicable particulate matter control requirements of Air District Regulation VIII;*
- *The use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *Provision of adequate electric or natural gas outlets to encourage use of natural gas or electric barbecues and electric gardening equipment; and*
- *Use of alternative energy sources.*

***RC-6d:** Maintain adequate data to analyze cumulative land use impacts on air quality and climate change. This includes tracking proposed, planned, and approved General Plan amendments, development, and land use decisions so that projects can be evaluated for cumulative air quality impacts, including impacts associated with transportation and land use decisions.*

***RC-6e:** Prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, the developer shall provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals).*

***RC-6f:** Construction activity plans shall include and/or provide for a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.*

- *Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.*

IMPACT 3.3-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT EXPOSE SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS (LESS THAN SIGNIFICANT)

The SJVAPCD has identified local community risks from air pollutants to include exposure to TACs and PM_{2.5} concentrations. TACs are a defined set of airborne pollutants that may pose a present or potential hazard to human health and PM_{2.5} can cause a wide range of health effects (e.g.,

aggravating asthma and bronchitis, causing visits to the hospital for respiratory and cardiovascular systems, and contributing to heart attacks and deaths). Common stationary source types of TAC and PM_{2.5} emissions include gasoline stations, dry cleaners, and diesel backup generators over 50 horsepower, which are subject to SJVAPCD permit requirements that include pollution control standards. The other, often more significant, common source type is on-road motor vehicles on freeways and roads such as trucks and cars, and off-road sources such as construction equipment, ships, and trains. Implementation of the proposed General Plan would have the potential of introducing new sources of TAC and PM_{2.5} emissions within the city as well as siting new sensitive receptors, such as new homes in close proximity to existing sources of TAC and PM_{2.5} emissions.

Health risks associated with TACs are most pronounced in the areas adjacent to freeway segments. Regardless of the existing health risks associated with TACs, the SJVAPCD CEQA Guidelines provide recommendations for all communities to ensure reduced health risks associated with TACs. The proposed General Plan includes policies that are intended to minimize exposure of TACs to sensitive receptors (see below).

The *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook), adopted by CARB, May 2005 was prepared to address the siting of sensitive land uses in close proximity to sources of TAC emissions. This guidance document is advisory (rather than mandatory) in nature. Nevertheless, the Handbook provides recommended siting distances for the following sources within the City:

- Within 500 feet of Highway 99 and Highway 120;
- Within 1,000 feet of a distribution center;
- Within 300 feet of dry cleaning operations that use perchloroethylene; and
- Within 300 feet of a large gas station, or 50 feet of a typical gas station.

Alternative D includes policies and programs that would limit exposure to TAC and PM concentrations within the city. These policies and actions are included within various elements of Alternative D. For example, Policy LU-3.9 requires that land uses are located away from excessive smoke, dust, and odors, including buffers for transitional uses, to ensure health and well-being of residents. In addition, Policy LU-9.2 requires that, as part of land use decisions, environmental justice issues related to potential health impacts associated with land use decisions are considered and addressed. Policy RC-6.2 would ensure that exposure of the public to toxic or harmful air emissions would be minimized by requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors. Furthermore, Implementing Measure RC-6e requires that, prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, developers must provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals).

Individual projects would be required to provide their own environmental assessments to determine health impacts from the construction and operation of their projects. In the event that future individual projects may result in exposure to TACs by sensitive receptors, these future

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projects would be required to analyze TAC impacts on an individual project level, per SJVAPCD requirements, and in accordance with California Office of Environmental Health Hazard Assessment (OEHHA) guidance.

In addition, it should also be noted that the Omnibus Low-NOx Rule was approved by CARB August 28, 2020, which will require heavy-duty truck engine NOx emissions to be cut to approximately 75% below current standards beginning in 2024, and 90% below current standards in 2027. The rule also places nine additional regulatory requirements on new heavy-duty truck and engines. Those additional requirements include a 50% reduction in particulate matter emissions, stringent new low-load and idle standards, a new in-use testing protocol, extended deterioration requirements, a new California-only credit program, and extended mandatory warranty requirements.

Compliance with the applicable policies and programs in Alternative D as well the applicable CARB and SJVAPCD rules and regulations, would minimize the potential exposure of sensitive receptors to substantial concentrations of TACs and PM_{2.5} within the City.

It should be noted that the Circulation Element for Alternative D plans for a full multi-modal system, including proposed truck routes. Therefore, the portions of the existing and proposed truck route that were identified as having the most potential for impacting sensitive receptors have been analyzed for their potential localized TAC impacts. Disclosure of the results of this analysis is provided below (see Table 3.3-7). For full detail on the results of this analysis, see the Health Risk Assessment for Alternative D provided in Appendix B.

RISK ASSESSMENT RESULTS ASSOCIATED WITH THE PROPOSED TRUCK ROUTES

The results of the risk analysis indicate that cancer and non-cancer risks vary depending on the exposure scenario and location. As would be expected, sensitive receptors nearest the truck routes have the greatest exposure and the associated risks are considerably lower as distance from the truck route increases.

Table 5.0-11 summarizes daily truck trips under the existing condition and the projected daily truck trips associated with implementation of the proposed Alternative D for roadway segments projected to have an increase of 1,000 or more daily truck trips or projected to have a total of 2,000 or more daily truck trips. In order to analyze the worst-case scenario under Alternative D, segments with the highest number of total daily truck trips under Alternative D buildout conditions or the highest increases in daily truck trips were selected to model potential health risks associated exposure to TACs associated with the truck routes. Based on these criteria, the following truck routes, were selected for further analysis:

- Lovelace Road (west of SR 99 and east of Union Road);¹
- SR 99 total north of Yosemite Avenue;
- SR 120 total between McKinley Avenue and Airport Way; and

¹ Note: The segments 'Lovelace Road west of SR 99' and 'Lovelace east of Union Road' were combined for the purposes of the health risk analysis. The most conservative truck trip generation values provided by Fehr & Peers for these segments were used for the purposes of the analysis, to provide for a conservative analysis.

- Roth Road west of Airport Way.

The analysis also addressed interacting truck route segments that intersect with the primary segments identified above to ensure that the cumulative, or combined effect, is addressed.

TABLE 5.0-11: SUMMARY OF MAXIMUM HEALTH RISKS ASSOCIATED WITH THE PROPOSED TRUCK ROUTE

SEGMENT	2019 EXISTING CONDITION		ALTERNATIVE D		INCREASE IN DAILY TRUCK TRIPS
	AVERAGE DAILY TRIPS	DAILY TRUCK TRIPS	AVERAGE DAILY TRIPS	DAILY TRUCK TRIPS	
Main Street north of SR 120 WB ramps	27,580	2,250	39,090	2,250	0
Airport Way north of Crom Street	14,290	620	43,190	1,790	1,170
Airport Way south of Northgate Drive	10,800	970	38,090	3,900	2,930
Airport Way north of Daisywood Drive	10,130	2,090	45,440	4,240	2,150
Yosemite Avenue west of El Rancho Drive	27,090	2,050	81,490	4,230	2,180
Louise Ave west of Airport Way	12,730	590	47,870	2,690	2,100
Lathrop Ave west of Madison Grove Drive	18,020	1,860	54,300	2,100	240
Lathrop Ave west of Sherwood Avenue	21,100	1,810	57,290	2,270	460
Lovelace Rd east of Airport Way	4,080	50	22,690	2,470	2,420
Lovelace Rd west of SR 99	-	-	37,670	4,200	4,200
French Camp Rd west of SR 99	10,780	1,660	21,740	4,280	2,620
French Camp Rd east of SR 99	6,810	740	10,290	1,610	870
Roth Rd west of Airport Way	8,620	1,720	32,700	4,910	3,190
Roth Rd east of Airport Way	-	-	19,230	2,310	2,310
Lovelace Rd east of Union Rd	-	-	36,410	3,970	3,970
Union Rd north of Lovelace Rd	5,090	0	15,770	1,450	1,450
SR 99 SB north of Lovelace Rd	40,090	4,300	66,150	4,300	0
SR 99 NB north of Lovelace Rd	39,870	4,220	65,970	4,220	0
SR 99 SB north of Yosemite Ave	40,390	4,180	73,250	4,960	780
SR 99 NB north of Yosemite Ave	38,350	3,980	70,210	4,670	690
SR 120 WB between McKinley Ave and Airport Way	43,330	3,600	116,470	6,010	2,410
SR 120 EB between McKinley Ave and Airport Way	38,870	3,480	116,230	5,520	2,040
SR 99 total north of Lovelace Rd	79,960	8,520	132,120	8,520	0
SR 99 total north of Yosemite Ave	78,740	8,160	143,460	9,630	1,470
SR 120 total between McKinley Ave and Airport Way	82,200	7,080	232,700	11,530	4,450

BOLD = SELECTED FOR FURTHER ANALYSIS

SOURCE: FEHR & PEERS, 2019

SCOPE OF RISK ASSESSMENT

Preparation of risk assessments is a three-step process. The first step is to identify potential contaminants that may lead to public health risks. The second step is to assess the magnitude of contaminants that may reach the public (exposure assessment). The last step is to calculate the

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magnitude of the health risk as a result of exposure to harmful contaminants on the basis of the toxicology of the contaminants.

The Office of Environmental Health Hazard Assessment (OEHHA), and the SJVAPCD provide guidance on the procedures that should be used, including, toxicological data for individual contaminants. While this risk assessment uses certain procedures and data from these Guidelines, this assessment is not intended to satisfy the reporting requirements under AB-2588 “Air Toxics” Hot Spots program, since the AB-2588 “Air Toxics” Hot Spots program regulates stationary sources of pollutants. Stationary sources of pollutants were not analyzed herein, since the risk assessment only includes an analysis of mobile sources of TACs.

The health risks that are evaluated in this study include:

- Residential Cancer Risk (70-year exposure; start at third trimester); and
- Acute and Chronic Hazard Indices.

The 70-year risk applies to residential areas where exposure may potentially occur 24 hours/day, 365 days/year. Non-cancer risks can be described as acute (short-term, exposure) or chronic health impacts.

SIGNIFICANCE CRITERIA

The following significance criteria shown in Table 5.0-12, based on guidance from the SJVAPCD, are used in this report to assess the significance of public health risks.

TABLE 5.0-12: THRESHOLDS OF SIGNIFICANCE FOR PUBLIC HEALTH RISKS

<i>RISK METRIC</i>	<i>SIGNIFICANCE THRESHOLD</i>
Residential Cancer Risk	20 per million
Chronic and Acute non-cancer hazard Indices	Non-cancer health hazard exposure index of 1.0

SOURCE: SJVAPCD, 2015. [HTTP://WWW.VALLEYAIR.ORG/TRANSPORTATION/0714-GAMAQI-TACS-THRESHOLDS-OF-SIGNIFICANCE.PDF](http://www.valleyair.org/transportation/0714-GAMAQI-TACS-THRESHOLDS-OF-SIGNIFICANCE.PDF)

As shown in Table 5.0-12, a project that generates emissions of TACs or PM_{2.5} that would cause a cancer risk in excess of 20 new cases in a population of one million persons at identified residential receptors, or a non-cancer hazard index of greater than or equal to 1.0 would be considered to have a significant project-level impact.

EMISSION SOURCES AND EXPOSURE

The source of TACs from the proposed project is diesel particulate matter (DPM) from mobile emissions (from the trucks generated) associated with the proposed truck routes, since the proposed project Circulation Element plans for a full multi-modal system, including proposed truck routes.

Based on numerous studies by the CARB, DPM represents the largest single contributor to public health risks. Additionally, in its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely

to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks.

Table 5.0-13 displays the residential cancer risk and acute and chronic incidence rate results at nearest receptors at each of the four Truck Route segments analyzed (including the cumulative impacts associated with the combined impact of proposed segments and interacting segments together).

TABLE 5.0-13: SUMMARY OF MAXIMUM HEALTH RISKS ASSOCIATED WITH THE NEW TRUCK ROUTE UNDER ALTERNATIVE D

<i>RISK METRIC</i>	<i>MAXIMUM RISK (PER MILLION PERSONS)</i>	<i>SIGNIFICANCE THRESHOLD</i>	<i>IS THRESHOLD EXCEEDED?</i>
Truck Route Segment 1: Lovelace Road (west of SR 99 and east of Union Road)			
Residential Cancer Risk (70-year exposure)	8.19	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥1	No
Acute (non-cancer)	<0.01	Hazard Index ≥1	No
Truck Route Segment 2: SR 99 total north of Yosemite Avenue			
Residential Cancer Risk (70-year exposure)	8.26	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥1	No
Acute (non-cancer)	<0.01	Hazard Index ≥1	No
Truck Route Segment 3: SR 120 total between McKinley Avenue and Airport Way			
Residential Cancer Risk (70-year exposure)	11.79	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥1	No
Acute (non-cancer)	<0.01	Hazard Index ≥1	No
Truck Route Segment 4: Roth Road west of Airport Way			
Residential Cancer Risk (70-year exposure)	2.69	20 per million	No
Chronic (non-cancer)	<0.01	Hazard Index ≥1	No
Acute (non-cancer)	<0.01	Hazard Index ≥1	No

SOURCES: AERMOD (LAKES ENVIRONMENTAL SOFTWARE, 2021); AND HARP-2 AIR DISPERSION AND RISK TOOL.

As shown in Table 5.0-13, maximum health risks associated with the worst-case truck route segments that could occur with implementation of Alternative D would not exceed the applicable significance thresholds. As shown in Table 5.0-13, the highest maximum risk projected for the worst-case truck route segments is well below the threshold of significance.

CONCLUSION

As shown in Table 5.0-13, maximum health risks associated with the worst-case truck route segments that could occur with implementation of Alternative D would not exceed the applicable significance thresholds. However, Alternative D also includes development of industrial and commercial projects that whose specific characteristics are not known at this time. Examples of individual development projects that could generate TACs include warehouses, distribution centers, dry cleaners, and gas stations. Heavy-duty construction equipment during construction activities could also generate TACs. Individual projects will be required to provide their own environmental assessments to determine health impacts from the construction and operation of their projects. Alternative D would assist the City in reducing TACs through various Alternative D policies and implementation actions, which are provided below.

In the event that future individual projects may result in exposure to TACs by sensitive receptors, these future individual projects would be required to analyze and mitigate TAC impacts on an individual project level, per SJVAPCD requirements, and in accordance with California Office of Environmental Health Hazard Assessment (OEHHA) guidance. The Alternative D set of policies at a program level set forth the parameters wherein future individual projects may be required to perform Health Risk Assessments. Alternative D, the policies therein coupled with the routine implementation of the project review necessary for zoning entitlements will ensure compliance with all applicable policies. Therefore, this impact is ***less than significant***. While the impact is less than significant for Alternative D, this alternative does not include enhancements to policies under the proposed General Plan that will ensure a HRA is used to establish an adequate separation between new development that includes point-source pollutions and sensitive receptors, so this alternative would be slightly worse than the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

LU-3.9: Locate residences and sensitive receptors away from areas of excessive noise, smoke, dust, odor, and lighting, and ensure that adequate provisions, including buffers or transitional uses, such as less intensive renewable energy production, light industrial, office, or commercial uses, separate the proposed residential uses from more intensive uses, including industrial, agricultural, or agricultural industrial uses and designated truck routes, to ensure the health and well-being of existing and future residents.

LU-9.2: As part of land use decisions, ensure that environmental justice issues related to potential adverse health impacts associated with land use decisions, including methods to reduce exposure to hazardous materials, industrial activity, vehicle exhaust, other sources of pollution, and excessive noise on residents regardless of age, culture, gender, race, socioeconomic status, or geographic location, are considered and addressed.

RC-6.1: Coordinate with the San Joaquin Valley Air Pollution Control District (Air District), San Joaquin Council of Governments, and the California Air Resources Board (State Air Board), and other agencies to develop and implement regional and county plans, programs, and mitigation measures that address cross-jurisdictional and regional air quality impacts, including land use, transportation, and climate change impacts, and incorporate the relevant provisions of those

plans into City planning and project review procedures. Also cooperate with the Air District, SJCOG, and State Air Board in:

- Enforcing the provisions of the California and Federal Clean Air Acts, state and regional policies, and established standards for air quality.
- Identifying baseline air pollutant and greenhouse gas emissions.
- Encouraging zero emission or alternative fuel city vehicle fleets, when feasible.
- Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.

RC-6.2: Minimize exposure of the public to toxic or harmful air emissions and odors through requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, including but not limited to industrial, manufacturing, and processing facilities, highways, and rail lines and, where uses or facilities pose substantial health risks, ensure that a Health Risk Assessment is conducted to identify and mitigate exposure to toxic air contaminants..

RC-6.5: Require and/or cooperate with the Air District to ensure that burning of any combustible material within the City is consistent with Air District regulations to minimize particulate air pollution.

IMPLEMENTATION ACTIONS

LU-1b: Regularly review and revise, as necessary, the Zoning Code to accomplish the following purposes:

- Ensure consistency with the General Plan in terms of zoning districts and development standards;
- Provide for a Downtown zone that permits the vibrant mixing of residential, commercial, office, business-professional, and institutional uses within the Central Business District;
- Ensure adequate buffers and transitions are required between intensive uses, such as industrial and agricultural industrial, and sensitive receptors, including residential uses and schools; and
- Provide for an Agricultural Industrial zone that accommodates the processing of crops and livestock.
- Ensure that land use requirements meet actual demand and community needs over time as technology, social expectations, and business practices change.

LU-9a: Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

RC-6a: Work with the Air District to implement the Air Quality Management Plan (AQMP).

- Cooperate with the Air District to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.
- Cooperate with the Air District and the State Air Board in their efforts to develop a local

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airshed model.

- *Cooperate with the Air District in its efforts to develop a cost/benefit analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.*

RC-6b: Review development, land use, transportation, and other projects that are subject to CEQA for potentially significant climate change and air quality impacts, including toxic and hazardous emissions and require that projects provide adequate, appropriate, and cost-effective mitigation measures reduce significant and potentially significant impacts. This includes, but is not limited to, the following:

- *Use of the Air District “Guide for Assessing and Mitigating Air Quality Impacts”, as may be amended or replaced from time to time, in identifying thresholds, evaluating potential project and cumulative impacts, and determining appropriate mitigation measures;*
- *Contact the Air District for comment regarding potential impacts and mitigation measures as part of the evaluation of air quality effects of discretionary projects that are subject to CEQA;*
- *Require projects to participate in regional air quality mitigation strategies, including Air District-required regulations, as well as recommended best management practices when applicable and appropriate ;*
- *Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *The use of energy efficient lighting (including controls) and process systems beyond Title 24 requirements shall be encouraged where practicable (e.g., water heating, furnaces, boiler units, etc.);*
- *The use of energy efficient automated controls for air conditioning beyond Title 24 requirements shall be encouraged where practicable; and*
- *Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winds;*
- *The developer of a sensitive air pollution receptor shall submit documentation that the project design includes appropriate buffering (e.g., setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor;*
- *Identify sources of toxic air emissions and, if appropriate, require preparation of a health risk assessment in accordance with Air District-recommended procedures; and*
- *Circulate the environmental documents for projects with significant air quality impacts to the Air District for review and comment.*

RC-6c: Review area and stationary source projects that could have a significant air quality impact, either individually or cumulatively, to identify the significance of potential impacts and ensure that adequate air quality mitigation is incorporated into the project, including:

- *The use of best available and economically feasible control technology for stationary industrial sources;*
- *All applicable particulate matter control requirements of Air District Regulation VIII;*
- *The use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *Provision of adequate electric or natural gas outlets to encourage use of natural gas or electric barbecues and electric gardening equipment; and*

- *Use of alternative energy sources.*

RC-6e: Prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, the developer shall provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals).

RC-6f: Construction activity plans shall include and/or provide for a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.

IMPACT 3.3-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT RESULT IN OTHER EMISSIONS (SUCH AS THOSE LEADING TO ODORS ADVERSELY AFFECTING A SUBSTANTIAL NUMBER OF PEOPLE) (LESS THAN SIGNIFICANT)

Objectionable odors can be generated from certain types of commercial and/or industrial land uses. Common sources of odors include wastewater treatment plants, landfills, composting facilities, refineries, and chemical plants. Additionally, temporary odors may occur during construction activities, including diesel emissions from construction equipment and diesel trucks traveling on local roadways. In general, residential land uses are not associated with odor generation, but they do serve as sensitive receptors. Odors rarely have direct health impacts, but they can be very unpleasant and can lead to anger and concern over possible health effects among the public.

Future development under Alternative D General Plan would be required to comply with all applicable SJVAPCD rules and regulations, and the proposed General Plan policies and actions. The proposed projects that could generate odor impacts on sensitive receptors are required to undergo an analysis consistent with the SJVAPCD's GAMAQI.

The Alternative D General Plan does not propose any specific development projects, but does identify areas for public and quasi-public facilities that could include expanded wastewater treatment facilities, composting facilities, and other potential odor sources. Similarly, lands designated for Industrial, Agricultural, and Agricultural Industrial uses could include new or expanded uses that could result in odors, including wastewater reclamation and treatment facilities, chemical manufacturing, materials manufacturing, food and beverage processing, and other uses that may involve odors. Similarly, agricultural uses may also include on-site processing or confined animal facilities that may result in odors. Individual projects that have the potential to generate significant objectionable odors would be required to undergo individual CEQA review, based upon the characteristics of each individual project. For example, projects that expand wastewater treatment facilities would require additional individual CEQA review. Individual projects could implement buffer distances and/or individual project-specific design-based mitigation measures to minimize odors, as applicable and feasible.

In addition, the Alternative D policies and actions listed below would further minimize the potential for other emissions (such as odors) to adversely affect a substantial number of people. For example, Policy LU-3.9 requires that residences and sensitive receptors are located away from excessive smoke, dust, and odors, including buffers for transitional uses, to ensure health and well-being of residents. Policy RC-6.2 would ensure that exposure of the public to toxic or harmful air emissions would be minimized by requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors. Additionally, Implementing Measure RC-6e requires that, prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, developers must provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals).

Therefore, implementation of Alternative D would have a ***less than significant*** impact relative to this topic, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

LU-3.9: Locate residences and sensitive receptors away from areas of excessive noise, smoke, dust, odor, and lighting, and ensure that adequate provisions, including buffers or transitional uses, such as less intensive renewable energy production, light industrial, office, or commercial uses, separate the proposed residential uses from more intensive uses, including industrial, agricultural, or agricultural industrial uses and designated truck routes, to ensure the health and well-being of existing and future residents.

LU-9.2: As part of land use decisions, ensure that environmental justice issues related to potential adverse health impacts associated with land use decisions, including methods to reduce exposure to hazardous materials, industrial activity, vehicle exhaust, other sources of pollution, and excessive noise on residents regardless of age, culture, gender, race, socioeconomic status, or geographic location, are considered and addressed.

RC-6.1: Coordinate with the San Joaquin Valley Air Pollution Control District (Air District), San Joaquin Council of Governments, and the California Air Resources Board (State Air Board), and other agencies to develop and implement regional and county plans, programs, and mitigation measures that address cross-jurisdictional and regional air quality impacts, including land use, transportation, and climate change impacts, and incorporate the relevant provisions of those plans into City planning and project review procedures. Also cooperate with the Air District, SJCOG, and State Air Board in:

- *Enforcing the provisions of the California and Federal Clean Air Acts, state and regional policies, and established standards for air quality.*
- *Identifying baseline air pollutant and greenhouse gas emissions.*
- *Encouraging zero emission or alternative fuel city vehicle fleets, when feasible.*
- *Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.*

RC-6.2: Minimize exposure of the public to toxic or harmful air emissions and odors through requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, including but not limited to industrial, manufacturing, and processing facilities, highways, and rail lines and, where uses or facilities pose substantial health risks, ensure that a Health Risk Assessment is conducted to identify and mitigate exposure to toxic air contaminants..

RC-6.3: Ensure that new construction is managed to minimize fugitive dust and construction vehicle emissions.

RC-6.4: Require appliances and equipment, including wood-burning devices, in development projects to meet current standards for controlling air pollution, including particulate matter and toxic air contaminants.

RC-6.5: Require and/or cooperate with the Air District to ensure that burning of any combustible material within the City is consistent with Air District regulations to minimize particulate air pollution.

Actions

LU-1b: Regularly review and revise, as necessary, the Zoning Code to accomplish the following purposes:

- *Ensure consistency with the General Plan in terms of zoning districts and development standards;*
- *Provide for a Downtown zone that permits the vibrant mixing of residential, commercial, office, business-professional, and institutional uses within the Central Business District;*
- *Ensure adequate buffers and transitions are required between intensive uses, such as industrial and agricultural industrial, and sensitive receptors, including residential uses and schools; and*
- *Provide for an Agricultural Industrial zone that accommodates the processing of crops and livestock.*
- *Ensure that land use requirements meet actual demand and community needs over time as technology, social expectations, and business practices change.*

LU-9a: Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

RC-6a: Work with the Air District to implement the Air Quality Management Plan (AQMP).

- *Cooperate with the Air District to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.*
- *Cooperate with the Air District and the State Air Board in their efforts to develop a local airshed model.*
- *Cooperate with the Air District in its efforts to develop a cost/benefit analysis of possible*

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control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.

RC-6b: Review development, land use, transportation, and other projects that are subject to CEQA for potentially significant climate change and air quality impacts, including toxic and hazardous emissions and require that projects provide adequate, appropriate, and cost-effective mitigation measures reduce significant and potentially significant impacts. This includes, but is not limited to, the following:

- Use of the Air District “Guide for Assessing and Mitigating Air Quality Impacts”, as may be amended or replaced from time to time, in identifying thresholds, evaluating potential project and cumulative impacts, and determining appropriate mitigation measures;*
- Contact the Air District for comment regarding potential impacts and mitigation measures as part of the evaluation of air quality effects of discretionary projects that are subject to CEQA;*
- Require projects to participate in regional air quality mitigation strategies, including Air District-required regulations, as well as recommended best management practices when applicable and appropriate ;*
- Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- The use of energy efficient lighting (including controls) and process systems beyond Title 24 requirements shall be encouraged where practicable (e.g., water heating, furnaces, boiler units, etc.);*
- The use of energy efficient automated controls for air conditioning beyond Title 24 requirements shall be encouraged where practicable; and*
- Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winds;*
- The developer of a sensitive air pollution receptor shall submit documentation that the project design includes appropriate buffering (e.g., setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor;*
- Identify sources of toxic air emissions and, if appropriate, require preparation of a health risk assessment in accordance with Air District-recommended procedures; and*
- Circulate the environmental documents for projects with significant air quality impacts to the Air District for review and comment.*

RC-6c: Review area and stationary source projects that could have a significant air quality impact, either individually or cumulatively, to identify the significance of potential impacts and ensure that adequate air quality mitigation is incorporated into the project, including:

- The use of best available and economically feasible control technology for stationary industrial sources;*
- All applicable particulate matter control requirements of Air District Regulation VIII;*
- The use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- Provision of adequate electric or natural gas outlets to encourage use of natural gas or electric barbecues and electric gardening equipment; and*
- Use of alternative energy sources.*

RC-6e: Prior to entitlement of a project that may be an air pollution point source, such as a manufacturing and extracting facility, the developer shall provide documentation that the use is located and appropriately separated from residential areas and sensitive receptors (e.g., homes, schools, and hospitals).

RC-6f: Construction activity plans shall include and/or provide for a dust management plan to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard.

- *Project development applicants shall be responsible for ensuring that all adequate dust control measures are implemented in a timely manner during all phases of project development and construction.*

Biological Resources

As described in Section 3.4, Biological Resources, the California Wildlife Habitat Relationship (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

According to the California Wildlife Habitat Relationship System, there are eighteen cover types (wildlife habitat classifications) in both the Alternative D Planning Area and proposed General Plan Planning Area out of 59 found in the State. These include: Annual Grassland, Barren, Cropland, Deciduous Orchard, Dryland Grain Crops, Eucalyptus, Evergreen Orchard, Fresh Emergent Wetland, Irrigated Grain Crops, Irrigated Hayfield, Irrigated Row and Field Crops, Lacustrine, Pasture, Rice, Riverine, Urban, Valley Foothill Riparian, and Vineyard. Figure 5.0-7 illustrates the location of each cover type (classification) within the Alternative D Planning Area.

IMPACT 3.4-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT HAVE A SUBSTANTIAL ADVERSE EFFECT, EITHER DIRECTLY OR THROUGH HABITAT MODIFICATIONS, ON ANY SPECIES IDENTIFIED AS A CANDIDATE, SENSITIVE, OR SPECIAL STATUS SPECIES IN LOCAL OR REGIONAL PLANS, POLICIES, OR REGULATIONS, OR BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE OR U.S. FISH AND WILDLIFE SERVICE (LESS THAN SIGNIFICANT)

Approval of Alternative D would not directly approve or entitle any development or infrastructure projects. However, implementation of Alternative D and the Alternative D Land Use Map would allow and facilitate future development in Manteca, which could result in adverse impacts to special-status plant and wildlife species, as well as sensitive natural habitat or wildlife movement corridors.

Special Status Plant Species

As described in Section 3.4, Biological Resources, the search revealed documented occurrences of two special status plant species within one mile of the Alternative D Planning Area. The search revealed documented occurrences of 20 special status plant species (including three non-vascular

plants) within approximately 15 miles (12 quads) of the Planning Area. Tables 3.4-2 and 3.4-3 in Section 3.4 provide a list of special-status plant species that are documented within one and 15 miles of the Alternative D Planning Area, along with their current protective status, geographic distribution, habitat, and blooming period. Because Alternative D and the proposed General Plan are located in the same USGS quadrangles, the same documented occurrences would be found for both.

Subsequent development under Alternative D could result in the direct loss of habitat areas associated with these special status plant species, since suitable habitat for these species does occur in the region. Additionally, indirect impacts to special status plant species could occur with implementation of Alternative D. Indirect impacts could include habitat degradation as a result of impacts to water quality.

Special status plant species receive protection from various Federal and State laws and regulations, including FESA and CESA. These regulations generally prohibit the taking of the plant species without a special permit. Additionally, Alternative D includes numerous policies and actions intended to minimize the potential for impacts to special status plant species. These policies and actions are listed below.

Special Status Animal Species

As described in Section 3.4, Biological Resources, the search revealed documented occurrences of 46 special status animal species within approximately 15 miles of the Alternative D Planning Area (12 quads). This includes: four amphibian, 13 birds, four fish, eight mammals, six reptile, and 11 invertebrates, including insect species. Of these species, 10 are documented within approximately one mile of the city's SOI. Tables 3.4-4 and 3.4-5 provide a list of the special-status animal species that are documented within approximately one mile and 15 miles (12 quads) of the Alternative D Planning Area, along with their current protective status, geographic distribution, and habitat. As noted above, because Alternative D and the proposed General Plan are located in the same USGS quadrangles, the same documented occurrences would be found for both.

While most new development in Manteca that would occur under the Alternative D would occur in areas that have been previously developed, subsequent development under this alternative could result in the direct loss of habitat areas associated with these special status animal species, since suitable habitat for these species does occur in the region and may occur on future development project sites within Manteca. Additionally, indirect impacts to special status animal species could occur with implementation of Alternative D. Indirect impacts could include habitat degradation as a result of impacts to water quality, increased human presence, and the loss of foraging habitat.

Special status animal species receive protection from various Federal and State laws and regulations, including FESA and CESA. These regulations generally prohibit the taking of a species or direct impact to foraging and breeding habitat without a special permit. Additionally,

Alternative D includes numerous policies and actions intended to minimize the potential for impacts to special status animal species. These policies and actions are listed below.

Conclusion

Similar to the proposed General Plan, construction and maintenance activities associated with future development projects under Alternative D could result in the direct and indirect loss or indirect disturbance of special status plant or animal species or their habitats that are known to occur, or have potential to occur, in the region. Impacts to special status species or their habitat could result in a substantial reduction in local population size, lowered reproductive success, or habitat fragmentation. Significant impacts on special status species associated with individual subsequent projects could include:

- increased mortality caused by higher numbers of automobiles in new areas of development;
- direct mortality from the collapse of underground burrows, resulting from soil compaction;
- direct mortality resulting from the movement of equipment and vehicles through construction areas;
- direct mortality resulting from removal of trees with active nests;
- direct mortality or loss of suitable habitat resulting from the trimming or removal of obligate host plants;
- direct mortality resulting from fill of wetlands features;
- loss of breeding and foraging habitat resulting from the filling of seasonal or perennial wetlands;
- loss of breeding, foraging, and refuge habitat resulting from the permanent removal of riparian vegetation;
- loss of suitable habitat for vernal pool invertebrates resulting from the destruction or degradation of vernal pools or seasonal wetlands;
- abandoned eggs or young and subsequent nest failure for special status nesting birds, including raptors, and other non-special status migratory birds resulting from construction-related noises;
- loss or disturbance of rookeries and other colonial nests;
- loss of suitable foraging habitat for special status raptor species;
- loss of migration corridors resulting from the construction of permanent structures or features; and
- impacts to fisheries/species associated with waterways.

However, implementation of the policies and actions listed below would assist in minimizing the potential for impacts. Subsequent development projects will be required to comply with the policies and actions, as well as the adopted Federal, State, and local regulations for the protection of special status plants and animals, including habitat.

Both the General Plan and Alternative D were prepared to include numerous policies and actions intended to protect special status plants and animals, including habitat, from adverse effects associated with future development and improvement projects. Specifically, policies require City staff to continue to require projects to comply with the requirements of the SJMSCP when reviewing proposed public and private land use changes. The SJMSCP requires applicants to pay mitigation fees on a per-acre basis to mitigate impacts to the various habitat and biological resources within the Planning Area. For project proponents who opt not to participate in the SJMSCP, General Plan actions require project proponents to instead provide site-specific research and ground surveys for proposed development projects that include a detailed inventory of all biological resources onsite and appropriate mitigation measures for avoiding or reducing impact to these biological resources. Additionally, the General Plan requires project proponents to satisfy applicable U.S. ESA, CESA, National Environmental Policy Act (NEPA), CEQA, and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.

While future development could impact species habitat, the implementation of the policies and actions described above and listed below, as well as Federal and State regulations, would minimize the potential for impacts. However, impacts would be slightly worse than the proposed General Plan as Alternative D would result in greater land disturbance and a greater potential to disturb special-status species and their habitats due to the larger size of the Planning Area (473 more acres) and decrease in land designated Urban Reserve (217 less acres) compared to the proposed General Plan. Overall, this impact would be ***less than significant***.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

RC-1.1: *Where feasible, protect and enhance surface water resources in creeks, streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat, and vernal pools through sound land use planning, community design, and site planning.*

RC-1.6: *Encourage the conservation of riparian habitat along local creeks and waterways in order to maintain water quality and provide suitable habitat for native fish and plant species.*

RC-1.8: *Minimize pollution of water resources, including the San Joaquin River, other waterways, and the groundwater basin, from urban runoff, soil erosion, and sedimentation.*

RC-7.2: *Conserve open space for conservation, recreation, and agricultural uses. Conversion of open space, as described under Policy RC-7.1, to developed residential, commercial, industrial, or other similar types of uses, shall be strongly discouraged. Undeveloped land that is designated for urban uses may be developed if needed to support economic development, improve the City's housing stock and range of housing types, and if the proposed development is consistent with the General Plan Land Use Map.*

RC-8.1: *Support the continuation of agricultural uses on lands designated for urban use, until urban development is imminent.*

RC-8.2: Provide an orderly and phased development pattern, encouraging the development of vacant lands within City boundaries prior to conversion of agricultural lands, so that farmland is not subjected to premature development pressure.

RC-8.3: Encourage permanent agricultural lands surrounding the Planning Area to serve as community separators and continue the agricultural heritage of Manteca.

RC-9.1: Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.

RC-9.2: Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands

RC-9.3: Focus conservation efforts on high priority conservation areas that contain suitable habitat for endangered, threatened, migratory, or special-status species and that can be managed with minimal interference with nearby urban land uses.

RC-9.4: Conserve existing native vegetation, where possible, and integrate regionally native plant species into development and infrastructure projects where appropriate.

RC-9.5: Condition new development in the vicinity of the San Joaquin River and Walthall Slough to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats.

RC-9.7: Protect special status species and other species that are sensitive to human activities.

RC-9.9: Encourage the planting of native vegetation on new drainage channels.

RC-9.8: Encourage contiguous habitat areas.

RC-9.10: Continue to support regional efforts to address issues related to urban development, habitat conservation and agricultural protection through participating in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

RC-12.1: Support the long-term viability and success of the natural Delta ecosystems and the continuation of Delta heritage.

RC-12.2: Support efforts to ensure the protection, viability, and restoration of the Delta ecosystem in perpetuity, including implementing local conservation efforts that improve adequate water supply and quality.

RC-12.4: Promote protection of areas for habitat restoration, including remnants of riparian and aquatic habitat, particularly in the Delta.

RC-12.5: Encourage compatibility between agricultural practices and wildlife habitat.

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RC-12.6: Preserve and protect the water availability and quality of the Delta for designated beneficial uses and habitat protection.

RC-12.7: Encourage and promote the expansion of floodplains and riparian habitats in levee projects.

Actions

RC-1f: Coordinate with the California Department of Fish and Wildlife, San Joaquin County, and local watershed protection groups to identify potentially impacted aquatic habitat within Manteca's Planning Area and to develop riparian management guidelines to be implemented by development, recreation, and other projects adjacent to creeks, streams, and other waterways.

RC-1g: Explore revising Title 17 (Zoning) of the Municipal Code to include standards for the protection of riparian habitat. The standards should include minimum setback requirements, site design standards, and requirements for the ongoing maintenance of creek and riparian habitat on public and private lands.

RC-1h: Conserve, and where feasible, create or restore areas that provide important water quality benefits such as riparian corridors, buffer zones, wetlands, undeveloped open space areas, levees, and drainage canals. Restoration efforts should provide for naturalized hydraulic functioning. Restoration should also promote the growth of riparian vegetation to effectively stabilize banks, screen pollutants from runoff entering the channel, enhance fisheries, and provide other opportunities for natural habitat restoration.

RC-1k: Maintain a buffer area between waterways and urban development to protect water quality and riparian areas.

RC-9a: Continue to require projects to comply with the requirements of the County Habitat Plan when reviewing proposed public and private land use changes.

RC-9b: Require project proponents who opt not to participate in the SJMSCP to:

- Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.*
- Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.*

RC-9f: Implement the multiple use of resource areas, where feasible, that includes passive recreational and educational opportunities with the protection of wildlife and vegetation habitat areas.

RC-9h: Utilize existing regulations and procedures, including but not limited to, the Zoning Ordinance and the environmental review process, in order to address impacts to special-status species and conserve sensitive habitats, including wetlands and riparian habitat.

RC-12a: Review all projects affecting areas within the Delta Secondary Zone to ensure they are consistent with the criteria and policies set forth by the Delta Stewardship Council's "Delta Plan".

RC-12b: As applicable, provide opportunities for review of and comment by the Reclamation Districts, the Delta Stewardship Council, Delta Protection Commission, and SWRCB during project review.

RC-12c: Review all projects located within or adjacent to priority habitat restoration areas, and consult the California Department of Fish and Wildlife to ensure that any impacts do not have a significant effect on the opportunity to restore habitat as described in the Delta Plan.

IMPACT 3.4-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT HAVE A SUBSTANTIAL ADVERSE EFFECT ON ANY RIPARIAN HABITAT OR OTHER SENSITIVE NATURAL COMMUNITY IDENTIFIED IN LOCAL OR REGIONAL PLANS, POLICIES, REGULATIONS OR BY THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE OR U.S. FISH AND WILDLIFE SERVICE (LESS THAN SIGNIFICANT)

The CDFW considers sensitive natural communities to have significant biotic value, with species of plants and animals unique to each community. The CNDDDB search revealed four sensitive natural communities within 15 miles of Manteca. The sensitive natural communities within 15 miles of Manteca include Elderberry Savanna, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, and Great Valley Valley Oak Riparian Forest. All four of these community types were once more widely distributed throughout California, but have been modified or destroyed by grazing, cultivation, and urban development. Since the remaining examples of these sensitive natural communities are under continuing threat from future development, CDFW considers them "highest inventory priorities" for future conservation. Of these sensitive natural communities documented within 15 miles of Manteca, none are located within one mile of the City limits.

While not always documented as a sensitive natural community in the CNDDDB, streams, rivers, wet meadows, and vernal pools are of high concern because they provide unique aquatic habitat for many endemic species, including special status plants, birds, invertebrates, and amphibians. Manteca is located in a bioregion that includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried all but five percent. Due to Manteca's agricultural history, agricultural irrigation ditches and canals are located in the Planning Area where active agricultural operations are found. A major area of riparian habitat is located on the west and southwest side of the Planning Area along the San Joaquin River. The riparian vegetation along Walthall Slough is contiguous with the southwestern Planning Area boundary. Additionally, seasonal wetland areas, including impounded irrigation runoff, along State Route 120 in the western portion of the Planning Area also support riparian

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vegetation and associated wildlife. These wetland areas are located within the SJMSCP Natural Lands Habitat Open Space category.

Approximately 112 acres of Valley Foothill Riparian habitat is located within the proposed General Plan Planning Area and Alternative D Planning Area. Over 225 species of birds, mammals, reptiles, and amphibians depend on California's riparian habitats, including the endangered riparian brush rabbit and the endangered riparian woodrat². Development accommodated by both the General Plan and Alternative D in or near riparian and habitat areas could result in removal of vegetation or further habitat degradation from pollutants transported by urban runoff, changes in vegetation as a result of changes in land use and management practices, as well as altered site hydrology from the construction of adjacent urban development and roadways. Alterations to the flow, bed, channel, or bank of creeks and streams within the Planning Area would affect the ability of riparian corridors to provide habitat for wildlife species that utilize them for feeding, cover, and nesting, and thus could result in a loss of riparian habitat function.

Both the General Plan and Alternative D were prepared to include numerous policies and actions intended to protect sensitive natural communities, including riparian habitat, from adverse effects associated with future development and improvement projects. As previously stated, Alternative D and General Plan Action RC-8a requires City staff to continue to require projects to comply with the requirements of the County Habitat Plan. Additionally, the SJMSCP requires developments along both sides of the San Joaquin River to be situated so as to maintain a 1,200-foot corridor encompassing 600 feet from the mean high-water mark of the river. Further, for the area on the east side of the river bordering lands in the Lathrop and Manteca planned land use areas as indicated on the SJMSCP Planned Land Use Map, the final setbacks shall be established after the completion of surveys for the riparian brush rabbit. Alternative D also includes a number of policies and actions related to habitat restoration and protection, including riparian and aquatic habitat, particularly in the Delta. For example, RC-9.5 requires new developments in the vicinity of the San Joaquin River and Walthall Slough to be conditioned to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats. Additionally, Action RC-12c requires City staff to consult the California Department of Fish and Wildlife for projects located within or adjacent to priority habitat restoration areas to ensure that any impacts do not have a significant effect on the opportunity to restore habitat as described in the Delta Plan.

Subsequent development projects will be required to comply with the Alternative D and adopted Federal, State, and local regulations for the protection of sensitive natural communities, including riparian habitat. Overall, this impact would be ***less than significant***, similar to the proposed General Plan.

² USFWS. November 2012. *Proposed Expansion San Joaquin River National Wildlife Refuge* {pg. 1}

Alternative D Policies and Actions that Minimize the Potential for Impacts*Policies*

RC-9.1: *Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.*

RC-9.2: *Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands*

RC-9.3: *Focus conservation efforts on high priority conservation areas that contain suitable habitat for endangered, threatened, migratory, or special-status species and that can be managed with minimal interference with nearby urban land uses.*

RC-9.5: *Condition new development in the vicinity of the San Joaquin River and Walthall Slough to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats.*

RC-9.8: *Encourage contiguous habitat areas.*

RC-9.10: *Continue to support regional efforts to address issues related to urban development, habitat conservation and agricultural protection through participating in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).*

Actions

RC-9a: *Continue to require projects to comply with the requirements of the County Habitat Plan when reviewing proposed public and private land use changes.*

RC-9b: *Require project proponents who opt not to participate in the SJMSCP to:*

- *Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.*
- *Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.*

RC-9e: *Limit the access of pedestrians and bicyclists to wetland areas so that access is compatible with long-term protection of these natural resources.*

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RC-9g: Where sensitive biological habitats have been identified on or immediately adjacent to a project site, the project shall include appropriate mitigation measures identified by a qualified biologist.

IMPACT 3.4-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT HAVE A SUBSTANTIAL ADVERSE EFFECT ON STATE OR FEDERALLY PROTECTED WETLANDS (INCLUDING, BUT NOT LIMITED TO, MARSH, VERNAL POOL, COASTAL, ETC.) THROUGH DIRECT REMOVAL, FILLING, HYDROLOGICAL INTERRUPTION, OR OTHER MEANS (LESS THAN SIGNIFICANT)

Streams, rivers, wet meadows, and vernal pools (wetlands and jurisdictional waters) are of high concern because they provide unique aquatic habitat (perennial and ephemeral) for many endemic species, including special status plants, birds, invertebrates, and amphibians. These aquatic habitats oftentimes qualify as protected wetlands or jurisdictional waters and are protected from disturbance through the CWA.

There are no free-running streams or natural bodies of water within the proposed General Plan or Alternative D Planning Areas; however, the San Joaquin River flows along the west and southwest side of the proposed General Plan or Alternative D Planning Areas boundary. Walthall Slough is a tributary to the San Joaquin River and runs contiguous with the southwestern boundary of the proposed General Plan or Alternative D Planning Areas. Additionally, Oakwood Lake and Weatherbee Lake are found in the southwest corner of the proposed General Plan or Alternative D Planning Areas north of and adjacent to the Walthall Slough. The majority of the Study Area has been historically leveled and any naturally occurring drainages have been channelized or otherwise disturbed. Some of the numerous Planning Area irrigation and drainage ditches/canals support riparian vegetation. The irrigation runoff impoundments along State Route 120 on the west side of the Study Area function as seasonal wetlands. If the Corps determines that the irrigation and drainage ditches/canals, or the irrigation water impoundments on the western edge of the Planning Area represent waters “adjacent” to the San Joaquin River, these features would be regulated pursuant to Section 404. No vernal pools are recorded by the SJMSCP within the proposed General Plan or Alternative D Planning Areas.

Section 404 of the CWA requires any project that involves disturbance to a wetland or water of the U.S. to obtain a permit that authorizes the disturbance. If a wetland or jurisdictional water is determined to be present, then a permit must be obtained from the USACE to authorize a disturbance to the wetland. Although subsequent projects may disturb protected wetlands and/or jurisdictional waters, the regulatory process that is established through Section 404 of the CWA ensures that there is “no net loss” of wetlands or jurisdictional waters. If, through the design process, it is determined that a future development project cannot avoid a wetland or jurisdictional water, then the USACE would require that there be an equal amount of wetland created elsewhere to mitigate any loss of wetland.

Both the proposed project and Alternative D are planning documents that do not themselves approve any specific physical changes to the to the environment; as such adoption of the proposed project or Alternative D would not directly impact the environment. However, both the proposed General Plan and Alternative D could have an indirect change on the physical

environment through subsequently approved projects that are consistent with the buildout that is contemplated in both documents. The implementation of an individual project would require a detailed and site-specific review of the site to determine the presence or absence of water features. If water features are present and disturbance is required, Federal and State laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these Federal and State laws are implemented through the permit process.

Construction and development activities associated with individual future projects could result in the disturbance or loss of waters of the United States. This includes perennial and intermittent drainages; unnamed drainages; vernal pools; freshwater marshes; and other types of seasonal and perennial wetland communities. Wetlands and other waters of the United States could be affected through direct removal, filling, hydrological interruption (including dewatering), alteration of bed and bank, encroachment, habitat conversion, routine maintenance, and other development-related activities. Impacts on wetlands and other waters could occur through habitat conversion, encroachment, routine maintenance, or other activities in the immediate vicinity of waterways and in habitat supporting wetlands. Indirect impacts could result from adjacent development that leads to habitat modifications such as changes in hydrology and reduction in water quality caused by urban runoff, erosion, and siltation.

Subsequent development projects will be required to comply with the policies and actions below, and adopted Federal, State, and local regulations for the protection of sensitive natural communities, including protected wetlands. Both the General Plan and Alternative D were prepared to include numerous policies and actions intended to protect wetlands and waters of the U.S. from adverse effects associated with future development and improvement projects. Overall, this impact would be *less than significant*, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

RC-1.1: Where feasible, protect and enhance surface water resources in creeks, streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat, and vernal pools through sound land use planning, community design, and site planning.

RC-1.4: Encourage the rehabilitation of culverted or open existing channelized waterways to a more natural condition, as feasible, to remove concrete linings and allow for a connection between the stream channel and the natural water table. Avoid creating additional culverted or open channelized waterways, unless no other alternative is available to protect human health, safety, and welfare.

RC-1.5: Where feasible, require development projects adjacent to creeks and streams to include opportunities for beneficial uses, such as flood control, ecological restoration, public access trails, and walkways.

RC-1.6: Encourage the conservation of riparian habitat along local creeks and waterways in order to maintain water quality and provide suitable habitat for native fish and plant species.

5.0 ALTERNATIVES

RC-1.8: Minimize pollution of water resources, including the San Joaquin River, other waterways, and the groundwater basin, from urban runoff, soil erosion, and sedimentation.

RC-7.1: Consider General Plan land use designations that include agriculture, permanent open space, parks and similar uses, as well as waterways (i.e., San Joaquin River, Lower Lone Tree Creek, Middle Lone Tree Creek, Oakwood Lake, Walker Slough, and Walthall Slough), as contributing to the City's open space.

RC-9.1: Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.

RC-9.2: Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands

RC-9.5: Condition new development in the vicinity of the San Joaquin River and Walthall Slough to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats.

RC-9.10: Continue to support regional efforts to address issues related to urban development, habitat conservation and agricultural protection through participating in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

RC-12.1: Support the long-term viability, success of the natural Delta ecosystems, and continuation of Delta heritage.

RC-12.2: Support efforts for the protection and restoration of the Delta ecosystem in perpetuity, including implementing local conservation efforts that improve adequate water supply and quality.

RC-12.4: Promote protection of areas for habitat restoration, including remnants of riparian and aquatic habitat, particularly in the Delta.

RC-12.6: Preserve and protect the water availability and quality of the Delta for both designated beneficial uses, and habitat protections.

RC-12.7: Encourage and promote the expansion of floodplains and riparian habitats in levee projects.

Actions

RC-1f: Coordinate with the California Department of Fish and Wildlife, San Joaquin County, and local watershed protection groups to identify potentially impacted aquatic habitat within Manteca's Planning Area and to develop riparian management guidelines to be implemented by development, recreation, and other projects adjacent to creeks, streams, and other waterways.

RC-1h: Conserve, and where feasible, create or restore areas that provide important water quality benefits such as riparian corridors, buffer zones, wetlands, undeveloped open space areas, levees, and drainage canals. Restoration efforts should provide for naturalized hydraulic functioning. Restoration should also promote the growth of riparian vegetation to effectively stabilize banks, screen pollutants from runoff entering the channel, enhance fisheries, and provide other opportunities for natural habitat restoration.

RC-1k: Maintain a buffer area between waterways and urban development to protect water quality and riparian areas.

RC-9c: Until such time that a Clean Water Act regional general permit or its equivalent is issued for coverage under the SJMSCP, acquisition of a Section 404 permit by project proponents will continue to occur as required by existing regulations. Project proponents shall comply with all requirements for protecting federally protected wetlands.

RC-9e: Limit the access of pedestrians and bicyclists to wetland areas so that access is compatible with long-term protection of these natural resources.

RC-9i: Consult with State and Federal agencies during the development review process to help identify wetland and riparian habitat that has candidacy for restoration, conservation, and/or mitigation. Focus restoration and/or conservation efforts on areas that would maximize multiple beneficial uses for such habitat.

RC-12a: Review all projects affecting areas within the Deltas' Secondary Zone to ensure they are consistent with the criteria and policies set forth by the Delta Stewardship Council's "Delta Plan".

RC-12c: Review all projects located within or adjacent to priority habitat restoration areas, and consult the California Department of Fish and Wildlife to ensure that any impacts do not have a significant effect on the opportunity to restore habitat as described in the Delta Plan.

IMPACT 3.4-4: ALTERNATIVE D IMPLEMENTATION WOULD NOT 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 (LESS THAN SIGNIFICANT)

Habitat loss, fragmentation, and degradation resulting from land use changes or habitat conversion can alter the use and viability of wildlife movement corridors (i.e., linear habitats that naturally connect and provide passage between two or more otherwise disjunct larger habitats or habitat fragments). Wildlife habitat corridors maintain connectivity for daily movement, travel, mate-seeking, and migration; plant propagation; genetic interchange; population movement in response to environmental change or natural disaster; and recolonization of habitats subject to local extirpation or removal. The suitability of a habitat as a wildlife movement corridor is related to, among other factors, the habitat corridor's dimensions (length and width), topography, vegetation, exposure to human influence, and the species in question.

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Species utilize movement corridors in several ways. “Passage species” are those species that use corridors as thru-ways between outlying habitats. The habitat requirements for passage species are generally less than those for corridor dwellers. Passage species use corridors for brief durations, such as for seasonal migrations or movement within a home range. As such, movement corridors do not necessarily have to meet any of the habitat requirements necessary for a passage species everyday survival. “Corridor dwellers” are those species that have limited dispersal capabilities – a category that includes most plants, insects, reptiles, amphibians, small mammals, and birds – and use corridors for a greater length of time.

As noted in Impact 3.4-2, There are no free-running streams or natural bodies of water within the proposed General Plan or Alternative D Planning Areas; however, the San Joaquin River flows along the west and southwest side of the proposed General Plan or Alternative D Planning Areas boundary. Walthall Slough is a tributary to the San Joaquin River and runs contiguous with the southwestern boundary of the proposed General Plan or Alternative D Planning Areas. Additionally, Oakwood Lake and Weatherbee Lake are found in the southwest corner of the proposed General Plan or Alternative D Planning Areas north of and adjacent to the Walthall Slough. As shown in the Alternative D Land Use Map and proposed General Plan Land Use Map, Open Space land uses are found adjacent to the Walthall Slough and San Joaquin River in the southwest corner of the Planning Area. The areas designated for urban uses by both the proposed Land Use Map and Alternative D Land Use Map near both creeks are generally developed with urban uses currently.

The Alternative D Planning Area does not currently provide an important connection between any areas of natural habitat that would otherwise be isolated. The Planning Area is not located within any of the ecological or wildlife movement corridors identified by the CDFW or identified in the SJMSCP as important to maintaining connectivity between communities, habitat patches, and species populations or identified in the SJMSCP 2019 Annual Report as preserve areas. However, as previously discussed, a number of wildlife nursery sites exist in the vicinity of the Planning Area, including the San Joaquin River Oxbow Preserve. The San Joaquin River Oxbow Preserve is located adjacent to the San Joaquin River within Lathrop in San Joaquin County, which is a 30-acre riparian forest preserve to established as mitigation to protect the existing riparian brush rabbit population. As discussed in Impact 3.4-2, Valley Foothill Riparian habitat exists in the southwestern corner of the proposed General Plan and Alternative D Planning Areas in close proximity to the San Joaquin River Oxbow Preserve. Given the close proximity to the known native nursery site across the river, there is a possibility that riparian brush rabbit could utilize the Planning Area’s riparian habitat as a nursery site.

Because Alternative D is a planning document and thus, no physical changes will occur to the environment, adoption of the proposed project would not directly impact the environment. However, development of the Planning Area could impede the movement of wildlife by disturbing and/or blocking local movement corridors or by disturbing nursery sites. Many of the species that would normally use annual grasslands and vernal pool complexes as foraging areas would not as easily move across the future urbanized landscapes planned for development. Alternative D includes areas designated for Agricultural and Open Space uses, including farmlands, creeks,

riparian areas, and grasslands, which would become the primary wildlife corridors as the landscape urbanizes. However, there is still a reasonable chance that movement corridors could be impacted throughout the buildout of subsequent individual projects.

Subsequent development projects will be required to comply with the policies and actions below, and adopted Federal, State, and local regulations for the protection of movement corridors. Both the General Plan and Alternative D were prepared to include policies and actions intended to protect movement corridors from adverse effects associated with future development and improvement projects. For example, requires projects located on or immediately adjacent to areas where sensitive biological habitats have been identified would be required to incorporate appropriate mitigation measures identified by a qualified biologist through the preparation of a site-specific technical report. The detailed and site-specific review of the site should include a determination of whether wildlife movement corridors are present or absent on a given project site. If movement corridors are present and disturbance is required, Federal and State laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these Federal and State laws are implemented through the permit process.

Overall, this impact would be ***less than significant***, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

RC-1.1: Where feasible, protect and enhance surface water resources in creeks, streams, channels, seasonal and permanent marshland, wetlands, sloughs, riparian habitat, and vernal pools through sound land use planning, community design, and site planning.

RC-1.5: Where feasible, require development projects adjacent to creeks and streams to include opportunities for beneficial uses, such as flood control, ecological restoration, public access trails, and walkways.

RC-1.6: Encourage and support the conservation of riparian habitat along local creeks and waterways in order to maintain water quality and provide suitable habitat for native fish and plant species.

RC-6.1: Consider General Plan land use designations that include agriculture, permanent open space, parks and similar uses, as well as waterways (i.e., San Joaquin River, Lower Lone Tree Creek, Middle Lone Tree Creek, Oakwood Lake, Walker Slough, and Walthall Slough), as contributing to the City's open space.

RC-9.1: Protect sensitive habitats that include creek corridors, wetlands, vernal pools, riparian areas, wildlife and fish migration corridors, native plant nursery sites, waters of the United States, sensitive natural communities, and other habitats designated by State and Federal agencies.

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RC-9.2: Preserve and enhance those biological communities that contribute to Manteca and the region's biodiversity, including but not limited to, wetlands, riparian areas, aquatic habitat, and agricultural lands

RC-9.3: Focus conservation efforts on high priority conservation areas that contain suitable habitat for endangered, threatened, migratory, or special-status species and that can be managed with minimal interference with nearby urban land uses.

RC-9.5: Condition new development in the vicinity of the San Joaquin River and Walthall Slough to protect riparian habitat, wetlands, and other native vegetation and wildlife communities and habitats.

RC-9.8: Encourage contiguous habitat areas.

Actions

RC-1h: Conserve, and where feasible, create or restore areas that provide important water quality benefits such as riparian corridors, buffer zones, wetlands, undeveloped open space areas, levees, and drainage canals. Restoration efforts should provide for naturalized hydraulic functioning. Restoration should also promote the growth of riparian vegetation to effectively stabilize banks, screen pollutants from runoff entering the channel, enhance fisheries, and provide other opportunities for natural habitat restoration.

RC-1k: Maintain a buffer area between waterways and urban development to protect water quality and riparian areas.

RC-7e: Review all development proposals within or adjacent to the Sphere of Influence, to ensure adequate preservation of community separators and open space resources.

RC-9a: Continue to require projects to comply with the requirements of the County Habitat Plan when reviewing proposed public and private land use changes.

RC-9b: Require project proponents who opt not to participate in the SJMSCP to:

- Satisfy applicable U.S. Endangered Species Act (ESA), California Endangered Species Act (CESA), National Environmental Policy Act (NEPA), California Environmental Quality Act (CEQA), and other applicable local, state, and federal laws and regulation provisions through consultations with the Permitting Agencies and local planning agencies.*
- Provide site-specific research and ground surveys for proposed development projects. This research must include a detailed inventory of all biological resources onsite, and appropriate mitigation measures for avoiding or reducing impact to these biological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.*

RC-9e: Limit the access of pedestrians and bicyclists to wetland areas so that access is compatible with long-term protection of these natural resources.

RC-9f: Implement the multiple use of resource areas, where feasible, that includes passive recreational and educational opportunities with the protection of wildlife and vegetation habitat areas.

RC-9g: Where sensitive biological habitats have been identified on or immediately adjacent to a project site, the project shall include appropriate mitigation measures identified by a qualified biologist.

RC-9h: Utilize existing regulations and procedures, including but not limited to, the Zoning Ordinance and the environmental review process, in order to address impacts to special-status species and conserve sensitive habitats, including wetlands and riparian habitat.

IMPACT 3.4-5: ALTERNATIVE D WOULD NOT CONFLICT WITH ANY LOCAL POLICIES OR ORDINANCES PROTECTING BIOLOGICAL RESOURCES, SUCH AS A TREE PRESERVATION POLICY OR ORDINANCE (LESS THAN SIGNIFICANT)

The proposed project and Alternative D policy documents, in which local policies are established. This EIR presents the numerous policies of the General Plan and Alternative D. Neither the General Plan nor Alternative D itself does not conflict with its policies. Subsequent development projects will be required to comply with the General Plan policies, as well as the Municipal Code. The General Plan does not contain any provisions that would conflict with local requirements, including Zoning Code Section 17.48.060 which addresses the maintenance and removal of existing trees, that provide for the protection of biological resources. Both the General Plan and Alternative D provide for the continued implementation of local requirements, including policies and ordinances, related to protection of biological resources. This is a **less than significant** impact and no mitigation is required, similar to the proposed General Plan.

IMPACT 3.4-6: ALTERNATIVE D IMPLEMENTATION WOULD NOT CONFLICT WITH THE PROVISIONS OF AN ADOPTED HABITAT CONSERVATION PLAN, NATURAL COMMUNITY CONSERVATION PLAN, OR OTHER APPROVED LOCAL, REGIONAL, OR STATE HABITAT CONSERVATION PLAN (LESS THAN SIGNIFICANT)

As noted previously, the City of Manteca is a participant in SJMSCP. The SJMSCP was approved in 2000 and the City of Manteca is a signatory to the SJMSCP.

The proposed General Plan Land Use Map and the Alternative D Land Use Map do not re-designate any land currently designated for open space or habitat protection. As such, the Alternative D and the Alternative D Land Use Map are consistent with the adopted SJMSCP in terms of land uses and habitat protection. Implementation of Alternative D would not conflict with the provisions of an adopted HCP/NCCP, or other approved local, regional, or State habitat conservation plan.

Future projects that do not comply with the SJMSCP could result in potentially significant impacts, which would be mitigated to a less than significant level through the implementation of Action RC-9a. Action RC-9a from the Resource Conservation Element of the General Plan requires City

staff to continue to require projects to comply with the requirements of the County Habitat Plan when reviewing proposed public and private land use changes. Overall, the General Plan would have a *less than significant* impact relative to this topic, similar to the proposed General Plan.

Alternative D Action that Minimizes the Potential for Impacts

RC-9a: Continue to require projects to comply with the requirements of the County Habitat Plan when reviewing proposed public and private land use changes

Cultural and Tribal Cultural Resources

IMPACT 3.5-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A HISTORICAL OR ARCHAEOLOGICAL RESOURCE PURSUANT TO SECTION 15064.5 (LESS THAN SIGNIFICANT)

A substantial adverse change in the significance of an historic resource is defined in Section 15064.5 (b)(1) of the CEQA Guidelines as the “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.” As described in Section 3.5, Cultural and Tribal Cultural Resources, known historic and prehistoric resource sites are located throughout the Planning Area, as shown in Tables 3.5-1 and 3.5-2 in Section 3.5, and it is expected that additional undiscovered sites may be located in various areas of the city as well.

The City of Manteca currently has 95 previously recorded archaeological sites (1 prehistoric archaeological sites and 94 historic archaeological sites) identified by the CCIC, and six built historic resources within the Planning Area identified by the San Joaquin County Historic Property Data File Directory. Additionally, as noted in Policy RC-11.4, the areas immediately surrounding the San Joaquin River and Walthall Slough, as well as on the east side of State Highway 99 and Louise Avenue crossing are known to have the potential for archaeological resources. Because the Planning Area for Alternative D would increase by 473 acres, an increase in documented resources would occur.

While Alternative D does not directly propose any adverse changes to any historic or archaeological resources, future development allowed Alternative D could affect known historical and archaeological resources or unknown historical and archaeological resources which have not yet been identified.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the City’s General Plan, Municipal Code, and other applicable State and local regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. The General Plan includes policies and actions that would reduce impacts to cultural, historic, and archaeological resources, as well as policies and actions for the conservation of cultural, historic, and archaeological resources. Specifically, policies require the City to protect Manteca’s Native American heritage by requiring projects to comply with the requirements of CEQA and the National Historic Preservation Act. Additionally, policies require development projects with a

potential to impact archeological resources to consult with the CCIC of the California Historical Resources Information System to determine the potential for a discovery of cultural resources, conduct a site evaluation as may be indicated and, mitigate any adverse impacts according to the recommendation of a qualified archaeologist. Overall, impacts related to adverse effects on significant historic and archaeological resources would be ***less than significant***. Because the Planning Area for Alternative D would increase by 473 acres, an increase in documented resources would occur, resulting in worse impacts related to this topic compared to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

RC-11.1: Protect important historic resources and use these resources to promote a sense of place and history in Manteca.

RC-11.2: Encourage historic resources to remain in their original use whenever possible. The adaptive use of historic resources is preferred, particularly as museums, educational facilities, or visitor serving uses, when the original use can no longer be sustained. Older residences may be converted to office/retail use in commercial areas and to tourist or business use, so long as their historical authenticity is maintained or enhanced.

RC-11.3: Do not approve any public or private project that may adversely affect an archaeological site without consulting the California Archaeological Inventory at Stanislaus State University, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendation of a qualified archaeologist. City implementation of this policy shall be guided by CEQA and the National Historic Preservation Act.

RC-11.4: Require that the proponent of any development proposal in an area with potential archaeological resources, and specifically near the San Joaquin River and Walthall Slough, and on the east side of State Highway 99 at the Louise Avenue crossing, shall consult with the California Archaeological Inventory, Stanislaus State University to determine the potential for discovery of cultural resources, conduct a site evaluation as may be indicated, and mitigate any adverse impacts according to the recommendation of a qualified archaeologist. The survey and mitigation shall be developer funded.

RC-11.5: Work with property owners seeking registration of historical structures as Historic Landmarks or listing on the Register of Historic Sites.

RC-10.6: Support the efforts of property owners to preserve and renovate historic and architecturally significant structures. Where such buildings cannot be preserved intact, the City shall seek to preserve the building facades.

RC-11.9: Review new development projects and work in conjunction with the California Historical Resources Information System to determine whether project areas contain known archaeological resources, either prehistoric and/or historic-era, or have the potential for such resources.

5.0 ALTERNATIVES

Actions

RC-11a: Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, cultural, or paleontological resources and/or to determine the potential for discovery of additional cultural or paleontological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-11b: Require a cultural and archaeological survey prior to approval of any project which would require excavation in an area that is sensitive for cultural or archaeological resources and require a paleontological survey in an area that is sensitive for paleontological resources. If significant cultural, archaeological, or paleontological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as documentation and conservation, to reduce adverse impacts to the resource.

RC-11c: Require all City permits for reconstruction or modification of existing buildings to include the submittal of a photograph of the existing structure or site. The intent is to create a record of the buildings in the City over time. A photograph will also be required for vacant sites that will be modified with new construction of new buildings or other above ground improvements.

RC-11d: Incorporate significant archaeological sites, where feasible, into open space areas.

RC-11e: Continue to inventory historic sites throughout the City. The inventory should contain a narrative of the significant facts regarding the historic events or persons associated with the site, and pictures of the site.

RC-11h: Adopt and implement a historical preservation ordinance.

RC-11g: Adopt and implement a historic building code, as authorized by state law.

IMPACT 3.5-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT LEAD TO THE DISTURBANCE OF ANY HUMAN REMAINS (LESS THAN SIGNIFICANT)

Indications are that humans have occupied San Joaquin County for over 10,000 years and it is not always possible to predict where human remains may occur outside of formal burials. Therefore, excavation and construction activities allowed under the General Plan may yield human remains that may not be interred in marked, formal burials.

Although Native American human remains are normally associated with former residential village locations, isolated burials and cremations have been found in many other locations. Future projects may disturb or destroy buried Native American human remains, including those interred outside of formal cemeteries. Consistent with state laws protecting these remains (that is, Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98), sites containing Native American human remains must be treated in a sensitive manner.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the policies and actions below, Municipal Code, and other

applicable State and local regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Under CEQA, human remains are protected under the definition of archaeological materials as being “any evidence of human activity.” Public Resources Code Section 5097 has specific stop-work and notification procedures to follow in the event that Native American human remains are inadvertently discovered during development activities. Both the General Plan and Alternative D require that human remains are treated in compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98. Overall, impacts related to human remains would be ***less than significant***. Because the Planning Area for Alternative D would increase by 473 acres, an increased potential for disturbance of human remains would occur, resulting in worse impacts related to this topic compared to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

RC-11.9: Review new development projects and work in conjunction with the California Historical Resources Information System to determine whether project areas contain known archaeological resources, either prehistoric and/or historic-era, or have the potential for such resources.

RC-11.10: Ensure that human remains are treated with sensitivity and dignity, and ensure compliance with the provisions of California Health and Safety Code Section 7050.5 and California Public Resources Code Section 5097.98

RC-11.11: Consistent with State, local, and tribal intergovernmental consultation requirements such as SB 18, consult as necessary with Native American tribes that may be interested in proposed new development and land use policy changes.

Actions

RC-11a: Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, cultural, or paleontological resources and/or to determine the potential for discovery of additional cultural or paleontological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-11j: Require all new development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources or human remains:

- If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the Director of Community Development shall be notified, the resources shall be examined by a qualified archaeologist, paleontologist, or historian for appropriate protection and preservation measures; and work may only*

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resume when appropriate protections are in place and have been approved by the Community Development Director; and

- *If human remains are discovered during any ground disturbing activity, work shall stop until the Director of Community Development and the San Joaquin County Coroner have been contacted. If the human remains are determined to be of Native American origin, the Native American Heritage Commission and the most likely descendants shall be consulted; and work may only resume when appropriate measures have been taken and approved by the Director of Community Development.*

IMPACT 3.5-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT CAUSE A SUBSTANTIAL ADVERSE CHANGE IN THE SIGNIFICANCE OF A TRIBAL CULTURAL RESOURCE, DEFINED IN PUBLIC RESOURCES CODE SECTION 21074, AND THAT IS: LISTED OR ELIGIBLE FOR LISTING IN THE CALIFORNIA REGISTER OF HISTORICAL RESOURCES, OR IN A LOCAL REGISTER OF HISTORICAL RESOURCES AS DEFINED IN PUBLIC RESOURCES CODE SECTION 5020.1(K), OR A RESOURCE DETERMINED BY THE LEAD AGENCY (LESS THAN SIGNIFICANT)

A Sacred Lands File (SLF) search was requested from the NAHC. The NAHC replied on May 15, 2017, and indicated that a search of the SLF was completed with positive results and that the lone Band of Miwok Indians should be contacted for more information about the sacred sites in the proposed General Plan and Alternative D Planning Areas.

The City of Manteca conducted Native American consultations under Senate Bill 18 (Chapter 905, Statutes of 2004), also known as SB 18, which requires local governments to consult with Tribes prior to making certain planning decisions and requires consultation and notice for a general and specific plan adoption or amendments in order to preserve, or mitigate impacts to, cultural places that may be affected. In addition to SB 18 consultation, the City conducted tribal consultations under the provisions of CEQA (Public Resources Code section 21080.3.1 subdivisions (b), (d) and (e)), also known as AB 52, which requires consulting for projects within the City of Manteca's jurisdiction and within the traditional territory of the Tribal Organizations who have previously requested AB52 consultations with the City. Eleven Tribal Organizations were contacted under AB 52 and SB 18. Notification letters were sent to all 11 Tribal Organizations on May 18, 2017 via certified mail. To date, two responses have been received and are summarized below.

- On May 22, 2017, Mr. Robert Columbro, Tribal Historic Preservation Officer, of the Buena Vista Rancheria of Me-Wuk Indians responded with a stating that the Rancheria respectively declined to become involved in consultation.
- On June 16, 2017, the Wilton Rancheria responded by letter dated June 16, 2017 requesting formal consultation with the City of Manteca under SB18. The Wilton Rancheria did not identify any specific sacred sites or tribal cultural resources within the City and Planning Area. However, the Wilton Rancheria also requested to receive any cultural resource assessments or other assessments that have been completed on all or part of the Planning Area's area of potential affect, including, but not limited to any:
 - Record searches conducted at an Information Center of the CHRIS;

- Archaeological inventory surveys;
- Sacred Land Files checks;
- Ethnographic studies; and
- Geotechnical reports.

Specific locations for future development and improvements have not been identified. Future projects would be required to be evaluated for project-specific impacts under CEQA at the time of application. It is noted that because the Planning Area for Alternative D would increase by 473 acres, resulting in an increased potential to disturb tribal cultural resources. Alternative D and local CEQA guidelines require tribal consultation and the protections of any identified archeological and tribal resources.

All future development projects would be required to follow development requirements, including compliance with local policies, ordinances, and applicable permitting procedures related to protection of tribal resources. Subsequent projects would be required to prepare site-specific project-level analysis to fulfill CEQA requirements, which also would include additional AB 52 and/or SB 18 consultation that could lead to the identification of potential site-specific tribal resources.

As discussed under Impacts 3.5-1 and 3.5-2, impacts from future development could impact unknown archaeological resources including Native American artifacts and human remains. Compliance with the policies and actions, as well as State and local guidelines would provide an opportunity to identify, disclose, and avoid or minimize the disturbance of and impacts to a tribal resource through tribal consultation and CEQA review procedures. Therefore, impacts related to tribal resources as a result of Alternative D implementation would be considered ***less than significant***, but would be worse than the proposed General Plan as Alternative D would increase the Planning Area by 473 acres and does not include the revised Action RC-10j of the proposed General Plan, which was modified to establish specific protections and notification for the inadvertent discovery of tribal cultural resources.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

RC-11.1: *Protect important historic resources and use these resources to promote a sense of place and history in Manteca.*

RC-11.2: *Encourage historic resources to remain in their original use whenever possible. The adaptive use of historic resources is preferred, particularly as museums, educational facilities, or visitor serving uses, when the original use can no longer be sustained. Older residences may be converted to office/retail use in commercial areas and to tourist or business use, so long as their historical authenticity is maintained or enhanced.*

RC-11.3: *Do not approve any public or private project that may adversely affect an archaeological site without consulting the California Archaeological Inventory at Stanislaus State University, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts*

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according to the recommendation of a qualified archaeologist. City implementation of this policy shall be guided by CEQA and the National Historic Preservation Act.

RC-11.4: Require that the proponent of any development proposal in an area with potential archaeological resources, and specifically near the San Joaquin River and Walthall Slough, and on the east side of State Highway 99 at the Louise Avenue crossing, shall consult with the California Archaeological Inventory, Stanislaus State University to determine the potential for discovery of cultural resources, conduct a site evaluation as may be indicated, and mitigate any adverse impacts according to the recommendation of a qualified archaeologist. The survey and mitigation shall be developer funded.

RC-11.7: Support the efforts of property owners to preserve and renovate historic and architecturally significant structures. Where such buildings cannot be preserved intact, the City shall seek to preserve the building facades.

RC-11.12: Consistent with State, local, and tribal intergovernmental consultation requirements such as SB 18, consult as necessary with Native American tribes that may be interested in proposed new development and land use policy changes.

Actions

RC-11a: Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, cultural, or paleontological resources and/or to determine the potential for discovery of additional cultural or paleontological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-11b: Require a cultural and archaeological survey prior to approval of any project which would require excavation in an area that is sensitive for cultural or archaeological resources and require a paleontological survey in an area that is sensitive for paleontological resources. If significant cultural, archaeological, or paleontological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as documentation and conservation, to reduce adverse impacts to the resource.

RC-11d: Incorporate significant archaeological sites, where feasible, into open space areas.

RC-11j: Require all new development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources or human remains:

- If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the Director of Community Development shall be notified, the resources shall be examined by a qualified archaeologist, paleontologist, or historian for appropriate protection and preservation measures; and work may only*

resume when appropriate protections are in place and have been approved by the Community Development Director; and

- *If human remains are discovered during any ground disturbing activity, work shall stop until the Director of Community Development and the San Joaquin County Coroner have been contacted. If the human remains are determined to be of Native American origin, the Native American Heritage Commission and the most likely descendants shall be consulted; and work may only resume when appropriate measures have been taken and approved by the Director of Community Development.*

Geology and Soils

The Alternative D Planning Area is relatively flat with natural gentle slope from east to west. The Planning Area's topography ranges in elevation from approximately 50 to 20 feet above sea level. Figure 5.0-8 shows the USGS Lathrop and Manteca Quadrangle Topographic view.

IMPACT 3.6-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT EXPOSE PEOPLE OR STRUCTURES TO POTENTIAL SUBSTANTIAL ADVERSE EFFECTS, INCLUDING THE RISK OF LOSS, INJURY, OR DEATH INVOLVING RUPTURE OF A KNOWN EARTHQUAKE FAULT, STRONG SEISMIC GROUND SHAKING, SEISMIC-RELATED GROUND FAILURE, INCLUDING LIQUEFACTION, OR LANDSLIDES (LESS THAN SIGNIFICANT)

There are no known active or potentially active faults, or Alquist-Priolo Earthquake Fault Zones, located within the Planning Alternative D Area. However, there are numerous faults located in the region. Figure 5.0-9 illustrates the location of these faults. These include an unnamed fault east of the City of Tracy, the San Joaquin fault, the Midway fault, the Corral Hollow-Carnegie fault, the Greenville fault, the Antioch fault, and the Los Positas fault. Rupture of any of these faults, or of an unknown fault in the region, could cause seismic ground shaking. As a result, future development in the City of Manteca may expose people or structures to potential adverse effects associated with a seismic event, including strong ground shaking and seismic-related ground failure.

While there are no known active faults located within the Alternative D Planning Area, the area could experience considerable ground shaking generated by faults outside Manteca. For example, Manteca could experience an intensity of MM V to VII generated by seismic events. The effect of this intensity level could have structural damage. Additionally, as noted previously, most areas of the City susceptible to seismic-related landslides are located in the higher-elevation portions of the City. Soil data from the NRCS Web Soil Survey (NRCS 2020) suggests that the potential for liquefaction ranges from low to high within the Alternative D Planning Area given that many soils are high in sand and the water table is moderately high.

All projects would be required to comply with the provisions of the CBSC, which requires development projects to: perform geotechnical investigations in accordance with State law, engineer improvements to address potential seismic and ground failure issues and use earthquake-resistant construction techniques to address potential earthquake loads when constructing buildings and improvements. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the CBSC, Alternative

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D policies and actions, Zoning Ordinance, and other regulations. Subsequent development and infrastructure would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. In addition to the requirements associated with the CBSC and the Municipal Code, Alternative D includes policies and actions to address potential impacts associated with seismic activity.

The Alternative D policies and actions (listed below) require review of development proposals to ensure compliance with California Health and Safety Code Section 19100 et seq. (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by natural forces such as earthquakes and wind. Policy S-2.7 requires public facilities, including buildings, water tanks, and reservoirs, are structurally sound and able to withstand seismic shaking and the effects of seismically-induced ground failure, consistent with the California Building Standards Codes and other applicable standards. All development and construction proposals must be reviewed by the City to ensure conformance with applicable building standards. Development on soils sensitive to seismic activity is only allowed after adequate site analysis, including appropriate siting, design of structure, and foundation integrity. Policy S-2.3 requires new development to mitigate the potential impacts of geologic and seismic hazards, including uncompacted fill, liquefaction, and subsidence, through the development review process. All future projects are subject to CEQA review to address seismic safety issues and provide adequate mitigation for existing and potential hazards identified. Overall, impacts associated with a seismic event, including rupture of an earthquake fault, seismic ground shaking, liquefaction, and landslides would be *less than significant*, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

S-2.1: Enforce adopted regulations to identify and address potential hazards relating to seismic, geologic, and soils conditions.

S-2.2: Regulate development in areas of seismic and geologic hazards to reduce risks to life and property associated with earthquakes, liquefaction, erosion, and expansive soils.

S-2.3: Require new development to mitigate the potential impacts of geologic and seismic hazards, including uncompacted fill, liquefaction, and subsidence, through the development review process.

S-2.4: Continue to require professional inspection of foundation, excavation, earthwork, and other geotechnical aspects of site development during construction on those sites specified in geotechnical studies as being prone to moderate or greater levels of seismic or geologic hazard.

S-2.5: Maintain an inventory of unreinforced masonry buildings and soft-story buildings. No change in use to a higher occupancy or more intensive use shall be approved in such structures until an engineering evaluation of the structure has been conducted and any structural deficiencies corrected.

S-2.6: Ensure that all public facilities, including buildings, water tanks, and reservoirs, are structurally sound and able to withstand seismic shaking and the effects of seismically-induced ground failure, consistent with the California Building Standards Codes and other applicable standards.

S-2.7: Require compliance with the State's building standards in the design and siting of critical facilities, including police and fire stations, school facilities, hospitals, hazardous materials manufacturing and storage facilities, and large public assembly halls.

Actions

S-2a: Continue to require preparation of geotechnical reports for proposed development projects, public projects, and all critical structures. The reports should include, but not be limited to: evaluation of and recommendations to mitigate the effects of fault displacement, ground shaking, uncompacted fill, expansive soils, liquefaction, subsidence, and settlement. Recommendations from the report shall be incorporated into the development project to address seismic and geologic risks identified in the report.

S-2b: Review development proposals to ensure compliance with the current State building standards.

S-2c: Review development proposals to ensure compliance with California Health and Safety Code Section 19100 et seq. (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by natural forces such as earthquakes and wind.

S-2d: Review and update the City's inventory of potentially hazardous buildings and require any development or change in occupancy proposals to address hazards, through measures such as strengthening buildings, changing the use of the buildings to an acceptable occupancy level, or demolishing or rehabilitating the building.

IMPACT 3.6-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT RESULT IN SUBSTANTIAL SOIL EROSION OR THE LOSS OF TOPSOIL (LESS THAN SIGNIFICANT)

Similar to the General Plan, Alternative D would allow development and improvement projects that would involve some land clearing, mass grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. Construction-related erosion could result in the loss of a substantial amount of nonrenewable topsoil and could adversely affect water quality in nearby surface waters.

A Custom Soil Survey was completed for the Planning Area using the NRCS Web Soil Survey program. The NRCS Soils Map is provided in Figure 5.0-10. Soil erosion data for the City of Manteca was obtained from the NRCS. As identified by the NRCS web soil survey, the erosion factor K within the City of Manteca varies widely from 0.02 to 0.37. The NRCS does not provide erosion factors for the urban land soils in the City, however, the erosion potential for the urban land soils in the City is considered to be low.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the CBSC, Alternative D policies and actions, Zoning Ordinance, and other regulations. In addition to compliance with City standards and policies, the Regional Water Quality Control Board will require a project specific Storm Water Pollution Prevention Plan (SWPPP) to be prepared for each project that disturbs an area of one acre or larger. The SWPPPs will include project specific best management measures that are designed to control drainage and erosion. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

Alternative D includes a range of policies and one action related to best management practices, NPDES requirements, and minimizing discharge of materials (including eroded soils) into the storm drain system. Overall, impacts associated with erosion and loss of topsoil would be **less than significant**, similar to the proposed General Plan.

Alternative D Policies and Action that Minimize the Potential for Impacts

Policies

RC-3.1: *Minimize soil erosion and loss of topsoil from land development activities, wind, and water flow.*

S-2.2: *Regulate development in areas of seismic and geologic hazards to reduce risks to life and property associated with earthquakes, liquefaction, erosion, and expansive soils.*

CF-8.1: *Maintain and improve Manteca's storm drainage facilities.*

CF-8.2: *Require all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants shall mitigate any drainage impacts as necessary and shall demonstrate that the project will not result in any increase in off-site runoff during rain and flood events.*

CF-8.3: *Continue to allow dual-use detention basins for parks, ball fields, and other uses where appropriate.*

CF-8.4: *Incorporate recreational trails and parkway vegetation design where open stormwater facilities are appropriate and ensure that vegetation does not reduce channel capacity.*

CF-8.5: *Maintain drainage channels in a naturalized condition where appropriate, incorporating recreational trails, parkway vegetation, and other amenities and ensuring that vegetation does not reduce channel capacity, and consistent with the Resource Conservation Element.*

CF-8.6: *Continue to work cooperatively with outside agencies such as the San Joaquin County Flood Control and Water Conservation District regarding storm drainage issues.*

Actions

S-2a: Continue to require preparation of geotechnical reports for proposed development projects, public projects, and all critical structures. The reports should include, but not be limited to: evaluation of and recommendations to mitigate the effects of fault displacement, ground shaking, uncompacted fill, expansive soils, liquefaction, subsidence, and settlement. Recommendations from the report shall be incorporated into the development project to address seismic and geologic risks identified in the report.

CF-8a: Update the Storm Drainage Master Plan and Public Facilities Implementation Plan every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-8b: Continue to complete gaps in the drainage system in areas of existing and future development.

CF-8c: Identify which storm water and drainage facilities are in need of repair and address these needs through the City's Capital Improvement Program.

CF-8d: Continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.

IMPACT 3.6-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT RESULT IN DEVELOPMENT LOCATED ON A GEOLOGIC UNIT OR SOIL THAT IS UNSTABLE, OR THAT WOULD BECOME UNSTABLE AS A RESULT OF THE PROJECT, AND POTENTIALLY RESULT IN ON- OR OFF-SITE LANDSLIDE, LATERAL SPREADING, SUBSIDENCE, LIQUEFACTION OR COLLAPSE (LESS THAN SIGNIFICANT)

Development allowed under Alternative D could result in the exposure of people and structures to conditions that have the potential for adverse effects associated with ground instability or failure. Because Alternative D is located in the same area as the proposed General Plan Planning Area, the same geologic conditions exist. Soils and geologic conditions in the Alternative D Planning Area have the potential for landslides, lateral spreading, subsidence, liquefaction, or collapse. Each are discussed below:

Landslide

Figure 5.0-11 illustrates the landslide potential (for non-seismically induced potential) in the vicinity of the Alternative D Planning Area. The Planning Area is essentially flat; therefore, the potential for landslides is low. However, the landslide potential increases in the southwestern corner of the city, which contains areas with increased elevation change.

Lateral Spreading

Lateral spreading generally is a phenomenon where blocks of intact, non-liquefied soil move down slope on a liquefied substrate of large areal extent. The potential for lateral spreading is present

where open banks and unsupported cut slopes provide a free face (unsupported vertical slope face). Ground shaking, especially when inducing liquefaction, may cause lateral spreading toward unsupported slopes. The potential for liquefaction is moderate to high in many areas of the city; however, because the Alternative D Planning Area is essentially flat lateral spreading of soils has not been observed within the Planning Area.

Subsidence

Drainage sufficient to create subsidence is uncommon within the City of Manteca. Subsidence has not been identified as an issue in the Alternative D Planning Area.

Liquefaction

Figure 5.0-11 shows liquefaction seismic hazard zones mapped within the Alternative D Planning Area, which delineates areas where liquefaction may occur during a strong earthquake. Areas along existing waterways, such as San Joaquin River, are defined as having the greatest potential for liquefaction.

Collapse

Collapsible soils undergo a rearrangement of their grains and a loss of cementation, resulting in substantial and rapid settlement under relatively low loads. Collapsible soils occur predominantly at the base of mountain ranges, where Holocene-age alluvial fan and wash sediments have been deposited during rapid run-off events. Differential settlement of structures typically occurs when heavily irrigated landscape areas are near a building foundation. Examples of common problems associated with collapsible soils include tilting floors, cracking or separation in structures, sagging floors, and nonfunctional windows and doors. Collapsible soils have not been identified in the Alternative D Planning Area as an issue. However, in areas subject to potential liquefaction, the potential for liquefaction induced settlement is present.

Conclusion

As future development and infrastructure projects are considered by the City of Manteca, each project will be evaluated for conformance with the CBSC, the policies and actions, Zoning Ordinance, and other regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Future development and improvement projects would be required to have a specific geotechnical study prepared and incorporated into the improvement design, consistent with the requirements of the State and City codes. In addition to the requirements associated with the CBSC and the Municipal Code, Alternative D includes policies and actions to ensure that development projects address potential geologic hazards, at-risk buildings and infrastructure is evaluated for potential risks, and site-specific studies are completed for area subject to liquefaction. Overall, impacts associated with ground instability or failure would be ***less than significant***, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts*Policies*

S-2.1: Enforce adopted regulations to identify and address potential hazards relating to seismic, geologic, and soils conditions.

S-2.2: Regulate development in areas of seismic and geologic hazards to reduce risks to life and property associated with earthquakes, liquefaction, erosion, and expansive soils.

S-2.3: Require new development to mitigate the potential impacts of geologic and seismic hazards, including uncompacted fill, liquefaction, and subsidence, through the development review process.

S-2.4: Continue to require professional inspection of foundation, excavation, earthwork, and other geotechnical aspects of site development during construction on those sites specified in geotechnical studies as being prone to moderate or greater levels of seismic or geologic hazard.

S-2.5: Maintain an inventory of unreinforced masonry buildings and soft-story buildings. No change in use to a higher occupancy or more intensive use shall be approved in such structures until an engineering evaluation of the structure has been conducted and any structural deficiencies corrected.

S-2.6: Ensure that all public facilities, including buildings, water tanks, and reservoirs, are structurally sound and able to withstand seismic shaking and the effects of seismically-induced ground failure, consistent with the California Building Standards Codes and other applicable standards.

S-2.7: Require compliance with the State's building standards in the design and siting of critical facilities, including police and fire stations, school facilities, hospitals, hazardous materials manufacturing and storage facilities, and large public assembly halls.

Actions

S-2a: Continue to require preparation of geotechnical reports for proposed development projects, public projects, and all critical structures. The reports should include, but not be limited to: evaluation of and recommendations to mitigate the effects of fault displacement, ground shaking, uncompacted fill, expansive soils, liquefaction, subsidence, and settlement. Recommendations from the report shall be incorporated into the development project to address seismic and geologic risks identified in the report.

S-2b: Review development proposals to ensure compliance with the current State building standards.

S-2c: Review development proposals to ensure compliance with California Health and Safety Code Section 19100 et seq. (Earthquake Protection Law), which requires that buildings be designed to resist stresses produced by natural forces such as earthquakes and wind.

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S-2d: Review and update the City's inventory of potentially hazardous buildings and require any development or change in occupancy proposals to address hazards, through measures such as strengthening buildings, changing the use of the buildings to an acceptable occupancy level, or demolishing or rehabilitating the building.

IMPACT 3.6-4: ALTERNATIVE D IMPLEMENTATION WOULD NOT RESULT IN DEVELOPMENT ON EXPANSIVE SOIL, AS DEFINED IN TABLE 18-1-B OF THE UNIFORM BUILDING CODE (1994), CREATING SUBSTANTIAL DIRECT OR INDIRECT RISKS TO LIFE OR PROPERTY (LESS THAN SIGNIFICANT)

Expansive soil properties can cause substantial damage to building foundations, piles, pavements, underground utilities, and/or other improvements. Structural damage, such as warping and cracking of improvements, and rupture of underground utility lines, may occur if the expansive potential of soils is not considered during the design and construction of all improvements.

Linear extensibility is a method for measuring expansion potential. The expansion potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

The linear extensibility of the soils within Manteca ranges from low to very high. Figure 5.0-11 illustrates the shrink-swell potential of soils in the Alternative D Planning Area. The majority of the Planning Area has soils with a low potential for expansion, including most of the developed land. The areas with moderate to high expansive soils represent only a small portion of the Planning Area, and would require special design considerations due to shrink-swell potentials.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the CBSC, the policies and actions shown below, Zoning Ordinance, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

The Resource Conservation Element of both the General Plan and Alternative D establish policies that are designed to protect from geologic hazards, including expansive soils. Consistency with the policies will require identification of geologic hazards and risk inventory of existing at-risk buildings and infrastructure. As required by the CBSC, a site-specific geotechnical investigation will identify the potential for damage related to expansive soils and non-uniformly compacted fill and engineered fill. If a risk is identified, design criteria and specification options may include removal of the problematic soils, and replacement, as needed, with properly conditioned and compacted fill material that is designed to withstand the forces exerted during the expected shrink-swell cycles and settlements.

Design criteria and specifications set forth in the design-level geotechnical investigation will ensure impacts from problematic soils are minimized. There are no additional significant adverse environmental impacts, apart from those disclosed in the relevant chapters of this Draft EIR, that

are anticipated to occur associated with expansive soils. Therefore, this impact is considered *less than significant*, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policy

S-2.1: Enforce adopted regulations to identify and address potential hazards relating to seismic, geologic, and soils conditions.

S-2.2: Regulate development in areas of seismic and geologic hazards to reduce risks to life and property associated with earthquakes, liquefaction, erosion, and expansive soils.

S-2.3: Require new development to mitigate the potential impacts of geologic and seismic hazards, including uncompacted fill, liquefaction, and subsidence, through the development review process.

S-2.4: Continue to require professional inspection of foundation, excavation, earthwork, and other geotechnical aspects of site development during construction on those sites specified in geotechnical studies as being prone to moderate or greater levels of seismic or geologic hazard.

Actions

RC-3a: Require development projects to comply with the California Building Standards Code requirements for specific site development and construction standards for specific soil types.

S-2a: Continue to require preparation of geotechnical reports for proposed development projects, public projects, and all critical structures. The reports should include, but not be limited to: evaluation of and recommendations to mitigate the effects of fault displacement, ground shaking, uncompacted fill, expansive soils, liquefaction, subsidence, and settlement. Recommendations from the report shall be incorporated into the development project to address seismic and geologic risks identified in the report.

S-2b: Review development proposals to ensure compliance with the current State building standards.

IMPACT 3.6-5: ALTERNATIVE D IMPLEMENTATION DOES NOT HAVE THE POTENTIAL TO HAVE SOILS INCAPABLE OF ADEQUATELY SUPPORTING THE USE OF SEPTIC TANKS OR ALTERNATIVE WASTE WATER DISPOSAL SYSTEMS WHERE SEWERS ARE NOT AVAILABLE FOR THE DISPOSAL OF WASTE WATER (LESS THAN SIGNIFICANT)

Wastewater service is provided by the City of Manteca via their network of collection infrastructure and the Wastewater Quality Control Facility (WQCF), which treats municipal sanitary sewage from the City of Manteca, portions of Lathrop, and Raymus Village, just northeast of Manteca.

The WQCF is located southwest of downtown Manteca on 22 acres owned by the City. The WQCF treats municipal wastewater from the City of Manteca and the City of Lathrop, and seasonally

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accepts industrial food processing waste effluent from Eckert Cold Storage (Nolte, 2007). Per contractual agreement, 8.42 million gallons per day (mgd) of plant capacity is allocated to the City of Manteca and 1.45 mgd is allocated to the City of Lathrop (EDAW, 2007). The WQCF treats an average dry weather flow (ADWF) of about 6 mgd and has an average dry weather design capacity of 9.87 mgd. The facility's current NPDES permit is currently shared between the City and Dutra Farms, Inc. and is effective until May 2020 (CA RWQCB, 2015). The anticipated buildout ADWF within areas served by the WQCF is 27 mgd (EDAW, 2007).

The WQCF is an activated sludge tertiary treatment plant. The facility includes an influent pump station, and primary, secondary and tertiary treatment facilities. Primary treatment at the WQCF consists of aerated grit removal and primary sedimentation. Secondary treatment at the facility consists of nitrification and denitrification in activated sludge aeration basins and subsequent secondary sedimentation. Undisinfected secondary effluent is either stored for agricultural use in a 15-million-gallon pond or blended with food processing waste and applied directly on the agricultural fields owned by the City (190 acres) and Dutra Farms, Inc. (70 acres) (CA RWQCB, 2015).

Secondary effluent not used for crop demands undergoes tertiary treatment, including rapid mixing, flocculation, cloth media filtration, and ultraviolet light (UV) disinfection. Treated tertiary effluent is either pumped to a truck fill station for construction vehicles to receive recycled water for construction purposes or discharged year-round through a 36-inch diameter pipe into the San Joaquin River (CA RWQCB, 2015). As the practice of discharging to fields is gradually phased out due to land development, effluent will increasingly be diverted to the River (City of Manteca, 2016).

The City is planning to expand the facility from the currently permitted 9.87 mgd to 27 mgd by buildout. The various WQCF facilities are designed to be expanded in phases, based on future growth. Proposed treatment improvements identified in the 2007 WQCF Master Plan include expansion of the primary, secondary, and tertiary treatment facilities, expansion of the solids handling systems and expansion of the co-generation system to generate electricity from methane produced during the treatment process (EDAW, 2007).

The WQCF is currently undergoing expansions to the solids handling streams to provide increased capacity to meet permitted requirements and new State regulations. Improvements include new facilities for receiving Fats, Oils, and Greases (FOGs), and receiving food waste separated from the solid waste streams. The separation of these materials is required by State regulations and is anticipated to provide additional energy generation in the form of biogas from the WQCF (City of Manteca, 2016).

The 2007 WQCF Master Plan reported wastewater flow projections for the City of Manteca of 19.5 mgd by 2023 and 23 mgd by buildout (Nolte Associates, 2007). Projections were based on wastewater generation factors developed from historical studies and developed based on different household densities for different residential land use categories. Assuming a similar level of development as anticipated in the 2007 WQCF Master Plan, future wastewater projections are anticipated to be lower than those estimated in the 2007 WQCF Master Plan because of existing

and pending water use efficiency regulations that will reduce indoor water use and wastewater flows.

All new wastewater generated from the proposed General Plan land uses and Alternative D land uses will be collected and transmitted to the WQCF for treatment. There will be no septic tanks or alternative waste water disposal systems utilized for new development planned under the General Plan or Alternative D. Therefore, this impact is considered *less than significant* and no mitigation is required, similar to the proposed General Plan.

IMPACT 3.6-6: ALTERNATIVE D IMPLEMENTATION WOULD NOT DIRECTLY OR INDIRECTLY DESTROY A UNIQUE PALEONTOLOGICAL RESOURCE OR SITE OR UNIQUE GEOLOGIC FEATURE (LESS THAN SIGNIFICANT)

Definition of Significance for Paleontological Resources

Only qualified, trained paleontologists with specific expertise in the type of fossils being evaluated can determine the scientific significance of paleontological resources. Fossils are considered to be significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life;
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.
6. All identifiable vertebrate fossils are considered significant due to the rarity of their preservation.

As so defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important. Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and invertebrate animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important.

Paleontological Sensitivity for Planning Area

The sensitivity of a given area or body of sediment with respect to paleontological resources is a function of both the potential for the existence of fossils and the predicted significance of any fossils which may be found there. The primary consideration in the determination of

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paleontological sensitivity of a given area, body of sediment, or rock formation is its potential to include fossils. Information that can contribute to assessment of this potential includes: 1) direct observation of fossils within the project area; 2) the existence of known fossil localities or documented absence of fossils in the same geologic unit (e.g., “Formation” or one of its subunits); 3) descriptive nature of sedimentary deposits (such as size of included particles or clasts, color, and bedding type) in the area of interest compared with those of similar deposits known elsewhere to favor or disfavor inclusion of fossils; and 4) interpretation of sediment details and known geologic history of the sedimentary body of interest in terms of the ancient environments in which they were deposited, followed by assessment of the favorability of those environments for the preservation of fossils.

Paleontologists consider all vertebrate fossils to be of significance. Fossils of other types are considered significant if they represent a new record, new species, an oldest occurring species, the most complete specimen of its kind, a rare species worldwide, or a species helpful in the dating of formations. However, even a previously designated low potential site may yield significant fossils. While no formations in the General Plan or Alternative D Planning Areas are assigned a very high sensitivity, the Planning Areas are in a region where fossils and paleontological resources have been identified. It is noted that because the Planning Area for Alternative D would increase by 473 acres, resulting in an increased potential to disturb paleontological resources.

Conclusion

It is possible that undiscovered paleontological resources could be encountered during ground-disturbing activities. Damage to or destruction of a paleontological resource would be considered a potentially significant impact under local, state, or federal criteria. Implementation of the actions below would ensure steps would be taken to reduce impacts to paleontological resources in the event that they are discovered during construction. Therefore, this impact would be ***less than significant***. Because the Planning Area for Alternative D would increase by 473 acres, an increased potential for disturbance of paleontological resources would occur, resulting in worse impacts related to this topic compared to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

RC-11.3: Do not approve any public or private project that may adversely affect an archaeological site without consulting the California Archaeological Inventory at Stanislaus State University, conducting a site evaluation as may be indicated, and attempting to mitigate any adverse impacts according to the recommendation of a qualified archaeologist. City implementation of this policy shall be guided by CEQA and the National Historic Preservation Act.

Actions

RC-11a: Require a records search for any proposed development project, to determine whether the site contains known archaeological, historic, cultural, or paleontological resources and/or to

determine the potential for discovery of additional cultural or paleontological resources. This requirement may be waived if determined by the City that the proposed project area is already sufficiently surveyed.

RC-11b: Require a cultural and archaeological survey prior to approval of any project which would require excavation in an area that is sensitive for cultural or archaeological resources and require a paleontological survey in an area that is sensitive for paleontological resources. If significant cultural, archaeological, or paleontological resources, including historic and prehistoric resources, are identified, appropriate measures shall be implemented, such as documentation and conservation, to reduce adverse impacts to the resource.

RC-11d: Incorporate significant archaeological sites, where feasible, into open space areas.

RC-11j: Require all new development, infrastructure, and other ground-disturbing projects to comply with the following conditions in the event of an inadvertent discovery of cultural resources or human remains:

- If construction or grading activities result in the discovery of significant historic or prehistoric archaeological artifacts or unique paleontological resources, all work within 100 feet of the discovery shall cease, the Community Development Director shall be notified, the resources shall be examined by a qualified archaeologist, paleontologist, or historian for appropriate protection and preservation measures; and work may only resume when appropriate protections are in place and have been approved by the Community Development Director; and*
- If human remains are discovered during any ground disturbing activity, work shall stop until the Community Development Director and the San Joaquin County Coroner have been contacted; if the human remains are determined to be of Native American origin, the Native American Heritage Commission and the most likely descendants have been consulted; and work may only resume when appropriate measures have been taken and approved by the Community Development Director.*

Greenhouse Gases, Climate Change, and Energy

IMPACT 3.7-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT GENERATE GHG EMISSIONS THAT COULD HAVE A SIGNIFICANT IMPACT ON THE ENVIRONMENT (LESS THAN SIGNIFICANT)

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. A project's GHG emissions are at a micro-scale relative to global emissions but could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. Implementation of the proposed project would contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of CO₂ and other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O), from mobile sources and utility usage.

Development that occurs because of implementation of the proposed project would include activities that emit greenhouse gas emissions over the short and long term. A summary of short- and long-term emissions and the analysis for each are included below.

The major projected impacts of climate change in Manteca are expected to be more days of extreme heat over longer periods, as well as potential for flooding. According to the City's CAP, the major sources of GHGs in Manteca are on-road transportation (50%), residential energy (23%), and non-residential energy (9%). Short-term and long-term emissions typically associated with construction and operations of future development projects, which may occur because of implementation of the proposed project, are further described below.

Short-Term Emissions

Short-term greenhouse gas emissions would occur because of construction equipment used for the following: demolition, grading, paving, and building construction activities associated with future development and infrastructure projects that will be undertaken in Manteca over the next 20 years. GHG emissions would also result from worker and vendor trips to and from project sites and from demolition and soil hauling trips. Construction activities are short-term and cease to emit greenhouse gases upon completion, unlike operational emissions that are continuous year after year until operation of the use ceases. As such, SJVAPCD recommends in its draft threshold to amortize project-specific construction emissions over a 30-year operational lifetime of a project. This normalizes construction emissions so that they can be grouped with operational emissions to generate a precise project GHG inventory. However, the SJVAPCD does not have a current threshold of significance for construction-related GHG emissions for plan-level impacts (including general plans).

Adoption of the Alternative D does not directly approve or otherwise entitle any new development projects or infrastructure improvement projects in Manteca. As such, the construction-related GHG emissions of future projects cannot be known or quantified at this time, as it would be highly speculative. Typically, construction-related GHG emissions contribute unacceptably (less than one percent) to a project's annual greenhouse gas emissions inventory and mitigation for construction-related emissions is not effective in reducing a project's overall contribution to climate change, given how small of a piece of the total emissions construction emissions are. Short-term climate change impacts due to future construction-related activities would be subject to State requirements for GHG emissions and would be assessed on project-by-project basis, as required by the SJVAPCD.

Long-Term Emissions

Future development projects will result in continuous GHG emissions from mobile, area, and operational sources. Mobile sources, including vehicle trips to and from development projects, will result primarily in emissions of CO₂, with minor emissions of CH₄ and N₂O. The most significant GHG emission from natural gas usage will be methane. Electricity usage by future development and indirect usage of electricity for water and wastewater conveyance will result primarily in emissions of carbon dioxide. Disposal of solid waste will result in emissions of methane from the

decomposition of waste at landfills coupled with CO₂ emission from the handling and transport of solid waste. These sources combine to define the long-term greenhouse gas inventory for typical development projects.

As shown in Table 2.0-2 in Chapter 2.0 of this Draft EIR, buildout of the City’s existing General Plan would result in a projected population increase of 116,546 and an increase of 37,969 jobs. The population growth is an approximately 40% increase compared to the previous population forecast.

Table 5.0-14 below summarizes VMT for the Planning Area and total VMT for the existing baseline condition, for the projected proposed Alternative D buildout condition, and for the projected existing General Plan buildout condition. The “per service population” metric, which accounts for both population and employment, is a common way to analyze the GHG efficiency of new development in comparison to an existing baseline. The land use modifications and policies proposed as part of Alternative D would result in an overall approximately 4.3% decrease in per service population vehicle miles traveled compared to the existing baseline condition. Additionally, Alternative D would result in an approximately 8.0% reduction in per service population vehicle miles traveled compared to the existing General Plan. Table 5.0-14, below, provides the VMT summary for the proposed project.

As discussed in Chapter 2.0, growth projections for Alternative D should not be considered a prediction for growth, as the actual amount of development that will occur throughout the 20- to 30-year planning horizon of the General Plan is based on many factors outside of the City’s control. Actual future development would depend on future real estate and labor market conditions, property owner preferences and decisions, site-specific constraints, and other factors.

TABLE 5.0-14: VMT SUMMARY FOR ALTERNATIVE D

YEAR/SCENARIO	TOTAL SERVICE POPULATION	VMT	VMT PER SERVICE POPULATION
<i>VMT – PLANNING AREA</i>			
2019 – Existing Baseline	106,216	1,784,908	16.8
Buildout – Proposed General Plan	254,832	4,213,205	16.5
Buildout – Alternative D	260,911	4,384,963	16.8

SOURCE: DE NOVO PLANNING GROUP, 2022; FEHR & PEERS, 2022

Buildout of Alternative D is anticipated to generate higher VMT and VMT per service population values compared to the proposed Project (4,384,963 compared with 4,213,635 VMT, and 16.8 VMT per service population compared to 16.5 VMT per service population, for Alternative D and the proposed project, respectively) (see Section 3.7: Greenhouse Gas Emissions, Climate Change, and Energy and Table 5.0-7 for further detail). In addition, Alternative D is anticipated to have higher future truck trips and potential future industrial development levels, compared with the proposed project. Therefore, this impact would be greater when compared to the proposed project.

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In order to reduce community-wide GHG emissions, Manteca has an adopted Climate Action Plan, which is a Qualified GHG Reduction Plan. The CAP is designed to streamline environmental review of future development projects in the City of Manteca consistent with CEQA Guidelines Section 15183.5(b), as identified within the CAP itself. The CAP identifies a strategy, reduction measures, and implementation strategies the City will use to achieve the State-recommended greenhouse gas (GHG) emissions reduction targets. The City uses the CAP to achieve GHG emissions reductions in a manner consistent with AB 32 within discretionary projects on a project-by-project basis and through ongoing planning activities and programs.

Alternative D has been developed to be consistent with the adopted CAP, and to further the goals and implementation strategies identified in the CAP.

For example, CAP Strategy Bicycle Infrastructure calls for increasing bicycle infrastructure within the City, including by requiring developers to contribute fair share funding to the construction of planned bike lanes, and to developing bicycle lanes as a means of alternative transportation. Additionally, CAP Strategy: Energy Efficient New Buildings requires developers to exceed Title 24 energy efficiency standards by at least 10 percent, or by providing solar panels or other non-building-related energy efficiency measures such as exterior lighting or water savings. Moreover, CAP Strategy: Energy Efficient Existing Buildings requires the City to encourage residents and business to participate in voluntary energy efficiency programs. Lastly, CAP Strategy: Solar Generation encourages the installation of on-site solar photovoltaic systems. These CAP strategies are supported by the following Alternative D policies and implementation measures:

LU-6.9: Require mixed-use development to provide strong connections with the surrounding development and neighborhoods through the provision of pedestrian and bicycle infrastructure and facilities and, where feasible, site consolidation.

C-2.7: Provide access for bicycles and pedestrians at the ends of cul-de-sacs, where right-of-way is available, to provide convenient access within and between neighborhoods and to encourage walking and bicycling to neighborhood destinations.

C-2.8: Signals, roundabouts, traffic circles and other traffic management, calming, and safety techniques shall be applied according to industry standards at residential and collector street intersections with collector and arterial streets in order to allow bicyclists and pedestrians to travel more conveniently and more safely from one neighborhood to another.

C-2.15: Ensure that development and infrastructure projects are designed in a way that provides pedestrian and bicycle connectivity to adjacent neighborhoods and areas (such as ensuring that sound walls, berms, and similar physical barriers are considered and gaps or other measures are provided to ensure connectivity).

C-4.1: Through regular updates to the City's Active Transportation Plan, establish a safe and convenient network of identified bicycle and pedestrian routes connecting residential areas with schools, recreation, shopping, and employment areas within the city, generally as shown in Figure CI-2. The City shall also strive to develop connections with existing and planned regional routes shown in the San Joaquin County Bicycle Master Plan.

C-4.2: Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians by providing native and drought-tolerant shade trees and controlling traffic speeds by implementing narrow lanes or other traffic calming measures in accordance with the City Neighborhood Traffic Calming Program on appropriate streets, in particular residential and downtown areas.

C-4.3: Provide a sidewalk and bicycle route system that serves all pedestrian and bicycle users and meets the latest guidelines related to the Americans with Disabilities Act (ADA).

C-4.5: Expand the existing network of off-street bicycle facilities as shown in the City's Active Transportation Plan to accommodate cyclists who prefer to travel on dedicated trails. Further, the City shall strive to develop: 1) a "city-loop" Class I bike path for use by both bicyclists and pedestrians that links Austin Road, Atherton Drive, Airport Way, and a route along or near Lathrop Road to the Tidewater bike path and its existing and planned extensions, and 2) an off-street bicycle trail extension between the Tidewater Bike Trail near the intersection of Moffat Boulevard and Industrial Park Drive to the proposed regional route between Manteca and Ripon.

C-4.6: Provide on-street Class II bike lanes, Class IV protected bike lanes, or off-street Class I bike paths along major collector and arterial streets whenever feasible.

C-4.7: Facilitate bicycle travel through residential streets through signage necessary to communicate the presence of Class III bicycle routes on residential streets that have sufficiently low volumes as to not require bike lanes or have narrower street cross sections that assist in calming traffic.

C-4.8: Provide sidewalks and/or walkways connecting to the residential neighborhoods, primary public destinations, major public parking areas, transit stops, and intersections with the bikeway system.

C-5.4: Include primary locations where the transit systems will connect to the major bikeways and pedestrian ways and primary public parking areas in the Active Transportation Plan (see C-4a).

RC-5.3: Require all new public and privately constructed buildings to meet and comply with construction and design standards that promote energy conservation, including the most current "green" development standards in the California Green Building Standards Code.

RC-5.4: Support innovative and green building best practices including, but not limited to, LEED certification for all new development and retrofitting existing uses, and encourage public and private projects to exceed the most current "green" development standards in the California Green Building Standards Code.

RC-5.5: Encourage the conservation of public utilities.

RC-5.6: Encourage the conservation of petroleum products.

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C-1c: Develop a pedestrian, bicycle, and transit improvement plan for the Downtown area to facilitate implementation of level of service policy C-1.4. This plan will develop a list of multi-modal improvements in the Downtown area to increase the viability and encourage the use of non-auto modes.

C-2b: When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for more safe travel by all modes that use streets, including autos, transit, pedestrians, and bicycles. Complete streets shall be developed in a context-sensitive manner. For example, it may be more appropriate to provide a Class I bike path instead of bike lanes along a major arterial. Pedestrian districts like Downtown Manteca or areas near school entrances should have an enhanced streetscape (e.g., narrower travel lanes, landscape buffers with street trees, etc.) to better accommodate and encourage pedestrian travel.

C-2f: Ensure that bicycle and pedestrian access is provided through walls and berms to minimize travel distances and increase the viability walking and bicycling.

C-2i: Pursue funding to improve and address areas of traffic, bicycle, and pedestrian hazards and conflicts with vehicular traffic movements.

C-4a: Periodically update the Active Transportation Plan through a process inclusive of community members and stakeholders to include all areas envisioned for development by this General Plan and to address pedestrian and bicycle facilities needed to provide a complete circulation system that adequately meets the needs of pedestrians and bicyclists.

C-4b: Utilize the standards set forth in the latest editions of the California MUTCD and American Association of State Highway and Transportation Officials (AASHTO) Green Book for improvement and re-stripping of appropriate major collector and arterial streets to accommodate Class II bike lanes or Class IV protected bikeways in both directions, where sufficient roadway width is available. This may include narrowing of travel lanes.

C-4d: Add bicycle facilities whenever possible in conjunction with road rehabilitation, reconstruction, or re-stripping projects.

C-4e: Update the City's standard plans to accommodate pedestrians and bicyclists, including landscape-separated sidewalks where appropriate, and to include bike lanes on collector and arterial streets, as defined by the Active Transportation Plan.

C-4f: Encourage and facilitate resident and visitor use of the bike trail system by preparing a map of the pedestrian and bike paths and implementing wayfinding signage.

C-4g: Update the standard plans to specify a set of roadways with narrower lanes (less than 12 feet) and pedestrian bulb-outs to calm traffic and increase pedestrian and bicycle comfort. These narrow lane standards shall be applied to appropriate streets (e.g., they shall not be applied to outside lanes on major truck routes) and new development.

RC-5a: Implement development standards and best practices that promote energy conservation and the reduction in greenhouse gases, including:

- Require new development to be energy-efficient through passive design concepts (e.g., techniques for heating and cooling, building siting orientation, street and lot layout, landscape placement, and protection of solar access;

- Require construction standards which promote energy conservation including window placement, building eaves, and roof overhangs;
- Require all projects to meet minimum State and local energy conservation standards;
- Require developments to include vehicle charging stations that meet or exceed the requirements of State law and to include outdoor electrical outlets to reduce the need for portable generators or other portable power sources, including for residential, commercial, industrial, park, and public/quasi-public uses;
- Require best practices in selecting construction methods, building materials, project appliances and equipment, and project design;
- Encourage and accommodate projects that incorporate alternative energy;
- Encourage projects to incorporate enhanced energy conservation measures, electric-only appliances, and other voluntary methods of reducing energy usage and greenhouse gas emissions; and
- Require large energy users to implement an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

RC-5b: Continue to review development projects to ensure that all new public and private development complies with or exceeds the California Code of Regulations, Title 24 standards as well as the energy efficiency standards established by the General Plan and the Municipal Code.

RC-5c: Develop a public education program to increase public participation in energy conservation.

RC-5d: Connect residents and businesses with programs that provide free or low-cost energy efficiency audits and retrofits to existing buildings.

RC-5e: Update the Municipal Code to incentivize the use of small-scale renewable energy facilities and, where appropriate, to remove impediments to such uses.

RC-5f: Cooperate with other agencies, jurisdictions, and organizations to expand energy conservation programs.

RC-5g: Explore alternative energy sources, including co-generation, active solar energy, and wind generation, and identify opportunities for alternative energy to be used in public and private projects.

These Alternative D policies and implementing actions would support and implement the goals established by the CAP, and that would minimize potential impacts associated with GHG emissions in the Alternative D Planning Area. Subsequent development projects will be required to comply with Alternative D and adopted Federal, State, and local regulations for the reduction of GHG emissions, including the adopted CAP. The City of Manteca has prepared Alternative D to include numerous policies and actions intended to reduce GHG emissions associated with future development and improvement projects. GHG emissions would be minimized through the implementation of the policies and actions listed below.

Alternative D includes implementation measure RC-4a, which requires the City to continue to assess and monitor performance of greenhouse gas emissions reduction efforts, including progress toward meeting longer-term GHG emissions reduction goals for 2035 and 2050 by

reporting on the City's progress annually, updating the Climate Action Plan and GHG inventory regularly to demonstrate consistency with State-adopted GHG reduction targets, including those targets established beyond 2020, and updating the GHG Strategy in the General Plan, as appropriate. Updates to the CAP would align the City's GHG reduction targets and associated reduction measures with the statewide GHG reduction targets established by AB 32, SB 32, and SB 375 and EOs S-03-05 and B-30-15. Alternative D's consistency with the existing 2013 Manteca CAP ensures that the Alternative D is consistent with a current Qualified GHG Reduction Strategy (i.e., the CAP), the Alternative D ensures that the 2013 Manteca CAP is updated to address State-established GHG reduction targets. Therefore, potential impacts to this topic would therefore be ***less than significant***.

Conclusion

As demonstrated in the analysis provided above, the proposed Alternative D is consistent with the existing 2013 CAP, ensuring consistency with a Qualified GHG Reduction Strategy. Additionally, the proposed Alternative D implementation measure RC-4a requires the City to continue to assess and monitor performance of greenhouse gas emissions reduction efforts, including progress toward meeting longer-term GHG emissions reduction goals for 2035 and 2050 by reporting on the City's progress annually, updating the Climate Action Plan and GHG inventory regularly to demonstrate consistency with State-adopted GHG reduction targets, including those targets established beyond 2020, and updating the GHG Strategy in the General Plan, as appropriate. Therefore, the Alternative D would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

While future development would generate GHGs that would contribute to climate change, the implementation of the Alternative D policies and action listed below, as well as Federal and State regulations, and implementation of the adopted Manteca CAP would result in a ***less than significant*** impact, similar to the proposed General Plan. However, Alternative D's increase in VMT, including per service population VMT, would result in slightly worse impacts than the proposed General Plan.

Alternative D Policies that Minimize the Potential for Impacts

Policies

LU-6.8: *Encourage the mixing of retail, service, residential, office, and institutional uses on the properties surrounding The Promenade to create a significant retail, employment, and cultural center south of Highway 120.*

LU-6.9: *Require mixed-use development to provide strong connections with the surrounding development and neighborhoods through the provision of pedestrian and bicycle infrastructure and facilities and, where feasible, site consolidation.*

LU-6.10: *Encourage the reuse of existing buildings within Downtown and in other developed locations designated for mixed-use development by utilizing the California Existing Building Code which provides flexibility in the retrofitting of buildings.*

LU-6.11: Promote the revitalization of underutilized, deteriorated areas and buildings within Downtown and in other developed locations designated for mixed-use development through development incentives, public/private partnerships, and public investments.

LU-8.5: Policy Area 3 is the Austin Road Business Park and Residential Community Master Plan area, with boundaries as shown in Figure LU-6. The primary land uses within Policy Area 3 are envisioned to be a master planned residential community with high-quality parks, community-serving commercial uses, and residential development ranging from very low to high density residential in order to accommodate a broad range of housing types, including executive housing and workforce housing. Residential uses located near SR 99 and adjacent the railroad tracks should include appropriate transitions and buffers to address air quality and noise.

C-2.7: Provide access for bicycles and pedestrians at the ends of cul-de-sacs, where right-of-way is available, to provide convenient access within and between neighborhoods and to encourage walking and bicycling to neighborhood destinations.

C-2.8: Signals, roundabouts, traffic circles and other traffic management, calming, and safety techniques shall be applied according to industry standards at residential and collector street intersections with collector and arterial streets in order to allow bicyclists and pedestrians to travel more conveniently and more safely from one neighborhood to another.

C-2.15: Ensure that development and infrastructure projects are designed in a way that provides pedestrian and bicycle connectivity to adjacent neighborhoods and areas (such as ensuring that sound walls, berms, and similar physical barriers are considered and gaps or other measures are provided to ensure connectivity).

C-4.1: Through regular updates to the City's Active Transportation Plan, establish a safe and convenient network of identified bicycle and pedestrian routes connecting residential areas with schools, recreation, shopping, and employment areas within the city, generally as shown in Figure CI-2. The City shall also strive to develop connections with existing and planned regional routes shown in the San Joaquin County Bicycle Master Plan.

C-4.2: Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians by providing shade trees and controlling traffic speeds by implementing narrow lanes or other traffic calming measures in accordance with the City Neighborhood Traffic Calming Program on appropriate streets, in particular residential and downtown areas.

C-4.4: Provide bicycle parking facilities at commercial, business/professional and light industrial uses in accordance with Part 11 of the California Building Standards Code.

C-4.5: Expand the existing network of off-street bicycle facilities as shown in the City's Active Transportation Plan to accommodate cyclists who prefer to travel on dedicated trails. Further, the City shall strive to develop: 1) a "city-loop" Class I bike path for use by both bicyclists and pedestrians that links Austin Road, Atherton Drive, Airport Way, and a route along or near Lathrop Road to the Tidewater bike path and its existing and planned extensions, and 2) an off-street bicycle trail extension between the Tidewater Bike Trail near the intersection of Moffat Boulevard and Industrial Park Drive to the proposed regional route between Manteca and Ripon.

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C.4-6: Provide on-street Class II bike lanes, Class IV protected bike lanes, or off-street Class I bike paths along major collector and arterial streets whenever feasible.

C.4.7: Facilitate bicycle travel through residential streets through signage necessary to communicate the presence of Class III bicycle routes on residential streets that have sufficiently low volumes as to not require bike lanes or have narrower street cross sections that assist in calming traffic.

C.4.8: Provide sidewalks and/or walkways connecting to the residential neighborhoods, primary public destinations, major public parking areas, transit stops, and intersections with the bikeway system.

C.4.9: Provide sidewalks along both sides of all new streets in the City and add sidewalks to fill gaps on existing streets as identified in the Active Transportation Plan.

C-5.1: Encourage and plan for the expansion of regional bus service in the Manteca area.

C-5.2: Promote increased commuter and regional passenger rail service that will benefit the businesses and residents of Manteca. Examples include Amtrak, the Altamont Commuter Express (ACE), and high-speed rail.

C-5.3: Identify and implement means of enhancing the opportunities for residents to commute from residential neighborhoods to the ACE station or other transit facilities that may develop in the City.

C-5.4: Include primary locations where the transit systems will connect to the major bikeways and pedestrian ways and primary public parking areas in the Active Transportation Plan (see C-4a).

C-5.5: Encourage programs that provide ridesharing and vanpool opportunities and other alternative modes of transportation for Manteca residents.

C-5.6: Promote the development of park-and-ride facilities near I-5, SR 120, SR 99, and transit stations.

C-5.7: Maintain a working relationship between the City administration and the local management of the Union Pacific Railroad regarding expansion of freight and passenger rail service and economic development of the region.

C-5.8: Design future roadways to accommodate transit facilities, as appropriate. These design elements should include installation of transit stops adjacent to intersections and provision of bus turnouts and sheltered stops, where feasible.

C-5.9: Encourage land uses and site developments that promote public transit along fixed route public transportation corridors, with priority given to those projects that will bring the greatest increase in transit ridership.

C-5.10: Ensure that development projects provide adequate facilities to accommodate school buses, including loading and turn-out locations in multifamily and other projects that include

medium and high density residential uses, and that the school districts are provided an opportunity to address specific needs associated with school busing.

C-5.11: As new areas and neighborhoods of the City are developed, fund transit and paratransit expansion (including capital, operations, and maintenance) to provide service levels consistent with existing development.

C-7.1: Encourage employers to provide alternative mode subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting, and work-at-home programs employee education and preferential parking for carpools/vanpools.

C-7.2: Require development projects that accommodate or employ 50 or more full-time equivalent employees to establish a transportation demand management (TDM) program that meets or exceeds applicable standards, including Air District requirements.

C-7.3: Partner with SJCOG on the Dibs program, which is the regional smart travel program, including rideshare, transit, walking, and biking, operated by SJCOG.

C-7.4: Require proposed development projects that could have a potentially significant VMT impact to consider reasonable and feasible project modifications and other measures during the project design and environmental review stage of project development that would reduce VMT effects in a manner consistent with state guidance on VMT reduction.

C-7.5: Evaluate the feasibility of a local or regional VMT impact fee program, bank, or exchange. Such an offset program, if determined feasible, would be administered by the City or a City-approved agency, and would offer demonstrated VMT reduction strategies through transportation demand management programs, impact fee programs, mitigation banks or exchange programs, in-lieu fee programs, or other land use project conditions that reduce VMT in a manner consistent with state guidance on VMT reduction. If, through on-site changes, a subject project cannot eliminate VMT impacts, the project could contribute on a pro-rata basis to a local or regional VMT reduction bank or exchange, as necessary, to reduce net VMT impacts.

C-7.6: Expand alternatives to driving by increasing opportunities to walk, bike, and use transit.

EF-2.3: Prioritize the development of employment-generating uses on sites with vacant buildings or on underutilized commercial, office, and industrial-designated parcels.

EF-2.9: Encourage mixed-use development on vacant and underutilized parcels along the North Main Street and Yosemite Avenue corridors, allowing flexible reaction to changing market conditions.

CF-11.3: Reduce municipal waste generation by increasing recycling, on-site composting, and mulching, where feasible, at municipal facilities, as well as using resource efficient landscaping techniques in new or renovated medians and parks.

CF-11.4: Encourage residential, commercial, and industrial recycling and reuse programs and techniques.

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CF-11.5: Coordinate with and support other local agencies and jurisdictions in the region to develop and implement effective waste management strategies and waste-to-energy technologies.

RC-5.1 Ensure that land use and circulation improvements are coordinated to reduce the number and length of vehicle trips.

RC-5.2 Encourage private development to explore and apply non-traditional energy sources such as co-generation, wind, and solar to reduce dependence on traditional energy sources.

RC-5.3 Require all new public and privately constructed buildings to meet and comply with construction and design standards that promote energy conservation, including the most current “green” development standards in the California Green Building Standards Code.

RC-5.4 Support innovative and green building best practices including, but not limited to, LEED certification for all new development and retrofitting existing uses, and encourage public and private projects to exceed the most current “green” development standards in the California Green Building Standards Code.

RC-5.5 Encourage the conservation of public utilities.

RC-5.6 Encourage the conservation of petroleum products.

RC-6.1: Coordinate with the San Joaquin Valley Air Pollution Control District (Air District), San Joaquin Council of Governments, and the California Air Resources Board (State Air Board), and other agencies to develop and implement regional and county plans, programs, and mitigation measures that address cross-jurisdictional and regional air quality impacts, including land use, transportation, and climate change impacts, and incorporate the relevant provisions of those plans into City planning and project review procedures. Also cooperate with the Air District, SJCOG, and State Air Board in:

- *Enforcing the provisions of the California and Federal Clean Air Acts, state and regional policies, and established standards for air quality.*
- *Identifying baseline air pollutant and greenhouse gas emissions.*
- *Encouraging zero emission or alternative fuel city vehicle fleets, when feasible.*
- *Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.*

RC-6.2: Minimize exposure of the public to toxic or harmful air emissions and odors through requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, including but not limited to industrial, manufacturing, and processing facilities, highways, and rail lines.

RC-6.3: Ensure that new construction is managed to minimize fugitive dust and construction vehicle emissions.

RC-6.4: Require appliances and equipment, including wood-burning devices, in development projects to meet current standards for controlling air pollution, including particulate matter and toxic air contaminants.

RC-6.5: Require and/or cooperate with the Air District to ensure that burning of any combustible material within the City is consistent with Air District regulations to minimize particulate air pollution.

ACTIONS

LU-1b: Regularly review and revise, as necessary, the Zoning Code to accomplish the following purposes:

- Ensure consistency with the General Plan in terms of zoning districts and development standards;*
- Provide for a Downtown zone that permits the vibrant mixing of residential, commercial, office, business-professional, and institutional uses within the Central Business District;*
- Ensure adequate buffers and transitions are required between intensive uses, such as industrial and agricultural industrial, and sensitive receptors, including residential uses and schools; and*
- Provide for an Agricultural Industrial zone that accommodates the processing of crops and livestock.*
- Ensure that land use requirements meet actual demand and community needs over time as technology, social expectations, and business practices change.*

LU-6a: Consider implementing incentives to support developers who construct vertical mixed-use projects and/or who build housing above non-residential ground-floor uses within Downtown.

LU-6d: Promote the intensified use and reuse of existing suites above ground floors.

LU-9a: Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

LU-9c: Encourage and support local transit service providers, through input from residents and stakeholders, to increase and expand services for people who are transit-dependent, including seniors, persons with mobility disabilities, and persons without regular access to automobiles by improving connections to regional medical facilities, senior centers, and other support systems that serve residents and businesses.

C-1c: Develop a pedestrian, bicycle, and transit improvement plan for the Downtown area to facilitate implementation of level of service policy C-1.4. This plan will develop a list of multi-modal improvements in the Downtown area through an engaging process inclusive of community members and stakeholders to increase the viability and encourage the use of non-auto modes.

C-2b: When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for more safe travel by all modes that use streets, including autos, transit, pedestrians, and bicycles. Complete streets shall be developed in a context-sensitive

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manner. For example, it may be more appropriate to provide a Class I bike path instead of bike lanes along a major arterial. Pedestrian districts like Downtown Manteca or areas near school entrances should have an enhanced streetscape (e.g., narrower travel lanes, landscape buffers with street trees, etc.) to better accommodate and encourage pedestrian travel.

C-2f: Ensure that bicycle and pedestrian access is both provided and prioritized through providing openings to increase access where soundwalls and berms are located to minimize travel distances and increase the viability walking and bicycling.

C-2i: Pursue funding to improve and address areas of traffic, bicycle, and pedestrian hazards and conflicts with vehicular traffic movements.

C-4a: Periodically update the Active Transportation Plan through a process inclusive of community members and stakeholders to include all areas envisioned for development by this General Plan and to address pedestrian and bicycle facilities needed to provide a complete circulation system that adequately meets the needs of pedestrians and bicyclists.

C-4b: Utilize the standards set forth in the latest editions of the California MUTCD and American Association of State Highway and Transportation Officials (AASHTO) Green Book for improvement and re-striping of appropriate major collector and arterial streets to accommodate Class II bike lanes or Class IV protected bikeways in both directions, where sufficient roadway width is available. This may include narrowing of travel lanes.

C-4d: Add bicycle facilities whenever possible in conjunction with road rehabilitation, reconstruction, or re-striping projects.

C-4e: Update the City's standard plans to accommodate pedestrians and bicyclists, including landscape-separated sidewalks where appropriate, and to include bike lanes on collector and arterial streets, as defined by the Active Transportation Plan.

C-4f: Encourage and facilitate resident and visitor use of the bike trail system by preparing a map of the pedestrian and bike paths and implementing wayfinding signage.

C-4g: Update the standard plans to specify a set of roadways with narrower lanes (less than 12 feet) and pedestrian bulb-outs to calm traffic and increase pedestrian and bicycle comfort. These narrow lane standards shall be applied to appropriate streets (e.g., they shall not be applied to outside lanes on major truck routes) and new development.

C-5a: Periodically review transit needs in the city through a process inclusive of community members and stakeholders and adjust bus routes to accommodate changing land use and transit demand patterns. The City shall also periodically coordinate with the San Joaquin Regional Transit District to assess the demand for regional transit services.

C-5b: Explore a transit connections study that would identify improvements to connections and access to the existing ACE station, the Manteca Transit Center, and future planned transit stations.

C-5c: Update the City's standard plans to include the option for bus turnouts at intersections of major streets.

C-5d: Review and consider alternatives to conventional bus systems, such as smaller shuttle buses (i.e. micro-transit), on-demand transit services, or transportation networking company services that connect neighborhood centers to local activity centers with greater cost efficiency.

C-5e: Work with the school districts to identify and implement opportunities for joint-use public transit that would provide both student transportation and local transit service.

C-5f: Through the development review process, ensure that projects provide increased land use densities and mixed uses, consistent with the Land Use Element to enhance the feasibility of transit and promote alternative transportation modes.

C-5g: Along fixed route corridors, require that new development to be compatible with and further the achievement of the Circulation Element. Requirements for compatibility may include but are not limited to:

- *Orienting pedestrian access to transit centers and existing and planned transit routes.*
- *Orienting buildings, walkways, and other features to provide pedestrian access from the street and locating parking to the side or behind the development, rather than separating the development from the street and pedestrian with parking.*
- *Providing clearly delineated routes through parking lots to safely accommodate pedestrian and bicycle circulation.*

C-5h: Review and update the City's funding programs to provide for adequate transit services, including funding for capital, operations, and maintenance, commensurate with growth of the City.

C-7a: Provide information about transit services, ridesharing, vanpools, and other transportation alternatives to single occupancy vehicles at City Hall, the library, on the City website, and through other channels.

C-7b: Develop TDM program requirements with consideration of addressing CEQA vehicle miles traveled impact analysis requirements (i.e., SB 743) in accordance with implementation measure C-1c. TDM programs shall include measures to reduce total vehicle miles traveled and peak hour vehicle trips. A simplified version of the Air District's Rule 9410 could be used to implement this measure.

C-7c: Coordinate with the San Joaquin Council of Governments on a Congestion/Mobility Management Program to identify TDM strategies to reduce VMT and mitigate peak-hour congestion impacts. Strategies may include: growth management and activity center strategies, telecommuting, increasing transit service frequency and speed, transit information systems, subsidized and discount transit programs, alternative work hours, carpooling, vanpooling, guaranteed ride home program, parking management, addition of general purpose lanes, channelization, computerized signal systems, intersection or midblock widenings, and Intelligent Transportation Systems.

*C-7d: Proposed development projects shall incorporate measures to reduce VMT, including consideration of the measures listed below. This list is not intended to be exhaustive, and not all measures may be feasible, reasonable, or applicable to all projects. The purpose of this list is to identify options for future development proposals, not to constrain projects to this list, or to require that a project examine or include all measures from this list. Potential measures, with possible ranges of VMT reduction for a project, include:**

- *Increase density of development (up to 10.75 percent)*
- *Increase diversity of land uses (up to 12 percent)*
- *Implement car-sharing programs (up to 5 percent)*
- *Implement parking management and pricing (up to 6 percent)*
- *Implement subsidized or discounted transit program (up to 0.7 percent)*

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- *Implement commute trip reduction marketing and launch targeted behavioral interventions (up to 3 percent)*
- *Participating in local or regional carpool matching programs***
- *Providing preferential carpool and vanpool parking***
- *Providing secure bicycle parking, showers, and lockers at work site***

**Note: VMT reduction ranges based on Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association (2010), and new research compiled by Fehr & Peers (2020). Additional engineering analysis is required prior to applying reductions to specific projects. Actual reductions will vary by project and project context.*

***Reduction determined at the project-level*

C-7e: Partner with SJCOG, San Joaquin County, and neighboring cities to evaluate a potential regional VMT impact fee program, bank, or exchange.

C-7f: Implement the Active Transportation Plan and other Bikeway and Pedestrian Systems goals and policies (C-4).

C-7g: Expand transit service and increase transit frequency and implement Public Transit goals and policies (C-5).

RC-4a: Continue to assess and monitor performance of greenhouse gas emissions reduction efforts, including progress toward meeting longer-term GHG emissions reduction goals for 2035 and 2050 by reporting on the City's progress annually, updating the Climate Action Plan and GHG inventory regularly to demonstrate consistency with State-adopted GHG reduction targets, including those targets established beyond 2020, and updating the GHG Strategy in the General Plan, as appropriate.

RC-5a: Implement development standards and best practices that promote energy conservation and the reduction in greenhouse gases, including:

- *Require new development to be energy-efficient through passive design concepts (e.g., techniques for heating and cooling, building siting orientation, street and lot layout, landscape placement, and protection of solar access);*
- *Require construction standards which promote energy conservation including window placement, building eaves, and roof overhangs;*
- *Require all projects to meet minimum State and local energy conservation standards;*
- *Require developments to include vehicle charging stations that meet or exceed the requirements of State law and to include outdoor electrical outlets to reduce the need for portable generators or other portable power sources, including for residential, commercial, industrial, park, and public/quasi-public uses;*
- *Require best practices in selecting construction methods, building materials, project appliances and equipment, and project design;*
- *Encourage and accommodate projects that incorporate alternative energy;*
- *Encourage projects to incorporate enhanced energy conservation measures, electric-only appliances, and other voluntary methods of reducing energy usage and greenhouse gas emissions; and*
- *Require large energy users to implement an energy conservation plan as part of the*

project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.

RC-5b: Continue to review development projects to ensure that all new public and private development complies with or exceeds the California Code of Regulations, Title 24 standards as well as the energy efficiency standards established by the General Plan and the Municipal Code.

RC-5c: Develop a public education program in partnership with relevant agencies and community organizations to increase public participation in energy conservation.

RC-5d: Connect residents and businesses with programs that provide free or low-cost energy efficiency audits and retrofits to existing buildings.

RC-5e: Update the Municipal Code to incentivize the use of small-scale renewable energy facilities and, where appropriate, to remove impediments to such uses.

RC-5f: Cooperate with other agencies, jurisdictions, and organizations to expand energy conservation programs.

RC-5g: Explore alternative energy sources, including co-generation, active solar energy, and wind generation, and identify opportunities for alternative energy to be used in public and private projects.

RC-5h: Implement transportation measures, as outlined in the Circulation Element, which reduce the need for automobile use and petroleum products.

RC-a: Work with the Air District to implement the Air Quality Management Plan (AQMP).

- *Cooperate with the Air District to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.*
- *Cooperate with the Air District and the State Air Board in their efforts to develop a local airshed model.*
- *Cooperate with the Air District in its efforts to develop a cost/benefit analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.*

RC-6b: Review development, land use, transportation, and other projects that are subject to CEQA for potentially significant climate change and air quality impacts, including toxic and hazardous emissions and require that projects provide adequate, appropriate, and cost-effective mitigation measures reduce significant and potentially significant impacts. This includes, but is not limited to, the following:

- *Use of the Air District “Guide for Assessing and Mitigating Air Quality Impacts”, as may be amended or replaced from time to time, in identifying thresholds, evaluating potential project and cumulative impacts, and determining appropriate mitigation measures;*
- *Contact the Air District for comment regarding potential impacts and mitigation measures as part of the evaluation of air quality effects of discretionary projects that are subject to CEQA;*

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- *Require projects to participate in regional air quality mitigation strategies, including Air District-required regulations, as well as recommended best management practices when applicable and appropriate ;*
- *Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *The use of energy efficient lighting (including controls) and process systems beyond Title 24 requirements shall be encouraged where practicable (e.g., water heating, furnaces, boiler units, etc.);*
- *The use of energy efficient automated controls for air conditioning beyond Title 24 requirements shall be encouraged where practicable; and*
- *Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winds;*
- *The developer of a sensitive air pollution receptor shall submit documentation that the project design includes appropriate buffering (e.g., setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor;*
- *Identify sources of toxic air emissions and, if appropriate, require preparation of a health risk assessment in accordance with Air District-recommended procedures; and*
- *Circulate the environmental documents for projects with significant air quality impacts to the Air District for review and comment.*

***RC-6c:** Review area and stationary source projects that could have a significant air quality impact, either individually or cumulatively, to identify the significance of potential impacts and ensure that adequate air quality mitigation is incorporated into the project, including:*

- *The use of best available and economically feasible control technology for stationary industrial sources;*
- *All applicable particulate matter control requirements of Air District Regulation VIII;*
- *The use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *Provision of adequate electric or natural gas outlets to encourage use of natural gas or electric barbecues and electric gardening equipment; and*
- *Use of alternative energy sources.*

***RC-6d:** Maintain adequate data to analyze cumulative land use impacts on air quality and climate change. This includes tracking proposed, planned, and approved General Plan amendments, development, and land use decisions so that projects can be evaluated for cumulative air quality impacts, including impacts associated with transportation and land use decisions.*

IMPACT 3.7-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT CONFLICT WITH ADOPTED PLANS, POLICIES, OR REGULATIONS ADOPTED FOR THE PURPOSE OF REDUCING GREENHOUSE GAS EMISSIONS (LESS THAN SIGNIFICANT)

As described under Impact 3.7-1, the proposed Alternative D is consistent with the City's adopted Climate Action Plan, which is a Qualified GHG Reduction Plan. The City's CAP has been developed to satisfy the GHG reduction requirements established by AB 32. As further provided under

Impact 3.7-1, the GHG emissions that would be emitted with implementation of proposed Alternative D would be required to comply with the existing 2013 Manteca CAP.

In addition, the Alternative D will not conflict with the implementation of regional transportation-related GHG targets outlined in San Joaquin Council of Governments' (SJCOG) 2018 Regional Transportation Plan and Sustainable Communities Strategy (2018 RTP/SCS). The 2018 RTP/SCS relied upon the existing Manteca General Plan to determine population, employment, and VMT increases associated with General Plan buildout. However, because the land use modifications contained in the proposed Alternative D reduce VMT per capita and per service population, in comparison to the existing General Plan as shown in Table 5.0-14, the proposed Alternative D would result in emissions less than those forecasted in the 2018 RTP/SCS. Additionally, the proposed Alternative D would not conflict with any of the other provisions of the Scoping Plan or applicable regulations related to GHG reductions because the Alternative D includes a comprehensive approach to expanding transit access, increasing mobility options, promoting a pedestrian- and bicycle-oriented urban development pattern, improve the City's jobs to housing ratio, developing complete neighborhoods that accommodate a variety of housing types and are proximate to shopping, services, and jobs, and encourages development of infill sites at comparable or higher densities higher than those allowed by the existing General Plan. All of these comprehensive policy approaches serve to support regional and statewide efforts to reduce GHG emissions, including CARB's Scoping Plan and SJCOG's 2018 RTP/SCS through energy efficiency, green building, VMT reduction, and the other policies and actions listed under Impact 3.7-1.

As stated under Impact 3.7-1, above, buildout of Alternative D is anticipated to generate higher VMT and VMT per service population values compared to the proposed Project (4,213,635 compared with 4,384,963 VMT, and 16.53 VMT per service population compared to 16.81 VMT per service population, for the proposed Project and Alternative D, respectively) (see Section 3.7: Greenhouse Gas Emissions, Climate Change, and Energy for further detail). Therefore, this impact would be greater when compared to the proposed project, given the higher VMT and VMT per service population, as well as the higher future truck trips, and potential future industrial development levels under Alternative D.

Alternative D would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. There is a ***less than significant*** impact relative to this topic.

IMPACT 3.7-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT RESULT IN A SIGNIFICANT IMPACT DUE TO WASTEFUL, INEFFICIENT, OR UNNECESSARY CONSUMPTION OF ENERGY RESOURCES, OR CONFLICT WITH OR OBSTRUCT A STATE OR LOCAL PLAN FOR RENEWABLE ENERGY OR ENERGY EFFICIENCY (LESS THAN SIGNIFICANT)

The State CEQA Guidelines require consideration of the potentially significant energy implications of a project. CEQA requires mitigation measures to reduce "wasteful, inefficient and unnecessary" energy usage (Public Resources Code Section 21100, subdivision [b][3]). According to Appendix G of the CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing overall energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on

renewable energy sources. In particular, a project would be considered “wasteful, inefficient, and unnecessary” if it were to violate state and federal energy standards and/or result in significant adverse impacts related to project energy requirements, energy inefficiencies, energy intensiveness of materials, cause significant impacts on local and regional energy supplies or generate requirements for additional capacity, fail to comply with existing energy standards, otherwise result in significant adverse impacts on energy resources, or conflict or create an inconsistency with applicable plan, policy, or regulation.

Alternative D is an alternative for the updated Manteca General Plan, with a horizon year of 2040. Buildout of the Alternative D includes residential, commercial, office, industrial, mixed-use, open space, and other land uses (see the description of Alternative D earlier in this Chapter, for detail). As previously discussed, the buildout growth projections are not a prediction for growth as the actual amount of development that will occur through the planning horizon of Alternative D is based on many factors outside of the City’s control, including future real estate and labor market conditions, property owner preferences and decisions, and site-specific constraints. The amount of energy used in the Alternative D Planning Area at buildout would directly correlate to the type and size of development, the energy consumption associated with unit appliances, outdoor lighting, and energy use associated with other buildings and activities. Other major sources of Alternative D Planning Area energy consumption include fuel used by vehicle trips generated during construction and operational activities, and fuel used by off-road and on-road construction vehicles during construction. Based on the higher VMT and VMT per service population associated with Alternative D as compared with the proposed project, as well as the lower future truck trips, and potential future industrial development levels under Alternative D, this impact under Alternative D is anticipated to be slightly worse compared to the proposed project.

The following discussion provides a breakdown of the energy uses in the Alternative D Planning Area upon buildout of Alternative D.

Electricity and Natural Gas

At buildout of Alternative D, the City’ electricity and natural gas consumption would be used primarily to power buildings (all types of buildings, including residential, commercial, office, industrial, public, etc.). Electricity would primarily come from the electricity utility provider (PG&E), though on-site solar generation would generate a substantial source of energy for the community at Alternative D buildout.

Fuel Consumption - On-road Vehicles (Operation)

Buildout of Alternative D would generate vehicle trips during its operational phase. As shown in Table 5.0-14, Alternative D would generate approximately 4,384,963 daily VMT in the Alternative D Planning Area. Fuel consumption is anticipated to represent the largest sector of GHG emissions

at Alternative D buildout. Energy for on-road vehicles would derive from gasoline, diesel, as well as electricity from PG&E and from on-site solar generation.

Fuel Consumption - On-road Vehicles (Construction)

Alternative D would also generate on-road vehicle trips during construction activities (from construction workers, vendors, and haulers). The vast majority of on-road mobile vehicle fuel used during the construction activities during buildout of Alternative D would occur during building construction.

Off-road Vehicles (Construction)

Off-road construction vehicles would use diesel fuel during construction activities. A non-exhaustive list of off-road constructive vehicles expected to be used during construction activities includes: cranes, forklifts, generator sets, tractors, excavators, and dozers.

Conclusion

Buildout of Alternative D would use energy resources for the operation of buildings (electricity and natural gas), for on-road vehicle trips (e.g., gasoline and diesel fuel), and from off-road construction activities (e.g., diesel fuel) associated with buildout of Alternative D. Each of these activities would require the use of energy resources. Developers of individual projects within the Alternative D Planning Area would be responsible for conserving energy, to the extent feasible, and would rely heavily on reducing per capita energy consumption to achieve this goal, including through Statewide and local measures. For example, developers would be required to comply with the latest version of the 2019 Building Energy Efficiency Standards (CalGreen), which became effective on. CalGreen requires developers to implement stringent requirements for home insulation, energy efficiency of appliances, renewable energy, electric vehicle charging, water efficiency and conservation, construction waste reduction, indoor and outdoor air quality, material conservation and resource efficiency, and efficiency of building maintenance and operation.

Additionally, developers would have to comply with proposed Alternative D policies and implementing actions that reduce energy usage, promote renewable and/or alternative energy sources, and encourage pedestrian/bicycle modes of transportation, as identified under Impact 3.7-1. For example, Policy LU-6.9 of the proposed General Plan requires mixed-use development to provide strong connections with the surrounding development and neighborhoods through the provision of pedestrian and bicycle infrastructure and facilities. Additionally, Policy RC-5.4 support innovative and green building best practices including, but not limited to, LEED certification for all new development and retrofitting existing uses, that exceed the most current “green” development standards in the California Green Building Standards Code. Other Alternative D Plan policies and implementation actions would further reduce energy consumption.

Buildout of Alternative D would be in compliance with all applicable federal, state, and local regulations regulating energy usage. For example, PG&E is responsible for the mix of energy resources used to provide electricity for its customers, and it is in the process of implementing

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the Statewide RPS to increase the proportion of renewable energy (e.g., solar and wind) within its energy portfolio.

PG&E is expected to achieve at least 60% renewables by 2030, and 100 percent zero-carbon electricity by 2045 (in compliance with SB 100). Additionally, energy-saving regulations, including the latest State Title 24 building energy efficiency standards (“part 6”), would be applicable to the proposed project. Other Statewide measures, including those intended to improve the energy efficiency of the statewide passenger and heavy-duty truck vehicle fleet (e.g., the Pavley Bill and the Low Carbon Fuel Standard), would improve vehicle fuel economies, thereby conserving gasoline and diesel fuel. These energy savings would continue to accrue over time. Furthermore, additional project-specific the sustainability features individual development projects could further energy consumption of individual projects. Alternative D would also be in compliance with the planning documents described previously within this section.

As a result, Alternative D would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for during Alternative D buildout, including during construction, operations, maintenance, and/or removal. PG&E, the electricity and natural gas provider to the site, maintains sufficient capacity to serve the Alternative D Planning Area. The City of Manteca would comply with all existing energy standards in implementing the Alternative D project, and would not result in significant adverse impacts on energy resources. Furthermore, Alternative D policies would ensure that connections would be developed between the Alternative D Planning Area and nearby pedestrian and bicycle pathways, including Policy C-2.15, which would ensure that development and infrastructure projects are designed in a way that provides pedestrian and bicycle connectivity to adjacent neighborhoods and areas, Policy C-4.1, which would establish a safe and convenient network of identified bicycle and pedestrian routes connecting residential areas with schools, recreation, shopping, and employment areas within the city, and Policy C-4.5, which would expand the existing network of off-street bicycle facilities as shown in the City’s Active Transportation Plan to accommodate cyclists who prefer to travel on dedicated trails.

Additionally, public transit access exists nearby, reducing the need for local motor vehicle travel. For example, General Plan Policy C.5.1 encourages and calls for planning for the expansion of regional bus service in the Manteca Area; Policy C-5.2 promotes increased commuter and regional passenger rail service; Policy C.5.5 encourages programs that provide ridesharing and vanpool opportunities and other alternative modes of transportation for Manteca residents; Policy C-5.6 promotes the development of park-and-ride facilities near I-5, SR 120, SR 99, and transit stations; and Policy C-5.8 requires that future roadways are designed to accommodate transit facilities.

Furthermore, with implementation of Alternative D, the Alternative D Planning Area would be linked closely with existing and proposed road, bicycle, and pedestrian networks that would well serve the residents of the Planning Area and neighboring communities. For the reasons stated above, buildout of Alternative D would not be expected cause an inefficient, wasteful, or unnecessary use of energy resources nor conflict with or obstruct a state or local plan for renewable energy or energy efficiency. This is a ***less than significant*** impact.

Alternative D Policies that Minimize the Potential for Impacts*POLICIES*

LU-6.8: Encourage the mixing of retail, service, residential, office, and institutional uses on the properties surrounding The Promenade to create a significant retail, employment, and cultural center south of Highway 120.

LU-6.9: Require mixed-use development to provide strong connections with the surrounding development and neighborhoods through the provision of pedestrian and bicycle infrastructure and facilities and, where feasible, site consolidation.

LU-6.10: Encourage the reuse of existing buildings within Downtown and in other developed locations designated for mixed-use development by utilizing the California Existing Building Code which provides flexibility in the retrofitting of buildings.

LU-6.11: Prioritize the revitalization of underutilized, deteriorated areas and buildings within Downtown and in other developed locations designated for mixed-use development through development incentives, public/private partnerships, and public investments.

LU-8.5: Policy Area 3 is the Austin Road Business Park and Residential Community Master Plan area, with boundaries as shown in Figure LU-6. The primary land uses within Policy Area 3 are envisioned to be a master planned residential community with high-quality parks, community-serving commercial uses, and residential development ranging from very low to high density residential in order to accommodate a broad range of housing types, including executive housing and workforce housing. Residential uses located near SR 99 and adjacent the railroad tracks should include appropriate transitions and buffers to address air quality and noise.

C-2.7: Provide access for bicycles and pedestrians at the ends of cul-de-sacs, where right-of-way is available, to provide convenient access within and between neighborhoods and to encourage walking and bicycling to neighborhood destinations.

C-2.8: Signals, roundabouts, traffic circles and other traffic management, calming, and safety techniques shall be applied according to industry standards at residential and collector street intersections with collector and arterial streets in order to allow bicyclists and pedestrians to travel more conveniently and more safely from one neighborhood to another.

C-2.15: Ensure that development and infrastructure projects are designed in a way that provides pedestrian and bicycle connectivity to adjacent neighborhoods and areas (such as ensuring that sound walls, berms, and similar physical barriers are considered and gaps or other measures are provided to ensure connectivity).

C-4.1: Through regular updates to the City's Active Transportation Plan, establish a safe and convenient network of identified bicycle and pedestrian routes connecting residential areas with schools, recreation, shopping, and employment areas within the city, generally as shown in Figure CI-2. The City shall also strive to develop connections with existing and planned regional routes shown in the San Joaquin County Bicycle Master Plan.

C-4.2: Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians by providing native and drought-tolerant shade trees and controlling traffic speeds by implementing narrow

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lanes or other traffic calming measures in accordance with the City Neighborhood Traffic Calming Program on appropriate streets, in particular residential and downtown areas C-4.3: Provide a sidewalk and bicycle route system that serves all pedestrian and bicycle users and meets the latest guidelines related to the Americans with Disabilities Act (ADA).

C-4.4: Provide bicycle parking facilities at commercial, business/professional and light industrial uses in accordance with Part 11 of the California Building Standards Code.

C-4.5: Expand the existing network of off-street bicycle facilities as shown in the City's Active Transportation Plan to accommodate cyclists who prefer to travel on dedicated trails. Further, the City shall strive to develop: 1) a "city-loop" Class I bike path for use by both bicyclists and pedestrians that links Austin Road, Atherton Drive, Airport Way, and a route along or near Lathrop Road to the Tidewater bike path and its existing and planned extensions, and 2) an off-street bicycle trail extension between the Tidewater Bike Trail near the intersection of Moffat Boulevard and Industrial Park Drive to the proposed regional route between Manteca and Ripon.

C-4.6: Provide on-street Class II bike lanes, Class IV protected bike lanes, or off-street Class I bike paths along major collector and arterial streets whenever feasible.

C-4.7: Facilitate bicycle travel through residential streets through signage necessary to communicate the presence of Class III bicycle routes on residential streets that have sufficiently low volumes as to not require bike lanes or have narrower street cross sections that assist in calming traffic.

C-4.8: Provide sidewalks and/or walkways connecting to the residential neighborhoods, primary public destinations, major public parking areas, transit stops, and intersections with the bikeway system.

C-4.9: Provide sidewalks along both sides of all new streets in the City and add sidewalks to fill gaps on existing streets as identified in the Active Transportation Plan.

C-5.1: Encourage and plan for the expansion of regional bus service in the Manteca area.

C-5.2: Promote increased commuter and regional passenger rail service that will benefit the businesses and residents of Manteca. Examples include Amtrak, the Altamont Commuter Express (ACE), and high-speed rail.

C-5.3: Identify and implement means of enhancing the opportunities for residents to commute from residential neighborhoods to the ACE station or other transit facilities that may develop in the City.

C-5.4: Include primary locations where the transit systems will connect to the major bikeways and pedestrian ways and primary public parking areas in the Active Transportation Plan (see C-4a).

C-5.5: Encourage programs that provide ridesharing and vanpool opportunities and other alternative modes of transportation for Manteca residents.

C-5.6: Promote the development of park-and-ride facilities near I-5, SR 120, SR 99, and transit stations.

C-5.7: *Maintain a working relationship between the City administration and the local management of the Union Pacific Railroad regarding expansion of freight and passenger rail service and economic development of the region.*

C-5.8: *Design future roadways to accommodate transit facilities, as appropriate. These design elements should include installation of transit stops adjacent to intersections and provision of bus turnouts and sheltered stops, where feasible.*

C-5.9: *Encourage land uses and site developments that promote public transit along fixed route public transportation corridors, with priority given to those projects that will bring the greatest increase in transit ridership.*

C-5.10: *Ensure that development projects provide adequate facilities to accommodate school buses, including loading and turn-out locations in multifamily and other projects that include medium and high density residential uses, and that the school districts are provided an opportunity to address specific needs associated with school busing.*

C-5.11: *As new areas and neighborhoods of the City are developed, fund transit and paratransit expansion (including capital, operations, and maintenance) to provide service levels consistent with existing development.*

C-7.1: *Encourage employers to provide alternative mode subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting, and work-at-home programs employee education and preferential parking for carpools/vanpools.*

C-7.2: *Require development projects that accommodate or employ 50 or more full-time equivalent employees to establish a transportation demand management (TDM) program that meets or exceeds applicable standards, including Air District requirements.*

C-7.3: *Partner with SJCOG on the Dibs program, which is the regional smart travel program, including rideshare, transit, walking, and biking, operated by SJCOG.*

C-7.4: *Require proposed development projects that could have a potentially significant VMT impact to consider reasonable and feasible project modifications and other measures during the project design and environmental review stage of project development that would reduce VMT effects in a manner consistent with state guidance on VMT reduction.*

C-7.5: *Evaluate the feasibility of a local or regional VMT impact fee program, bank, or exchange. Such an offset program, if determined feasible, would be administered by the City or a City-approved agency, and would offer demonstrated VMT reduction strategies through transportation demand management programs, impact fee programs, mitigation banks or exchange programs, in-lieu fee programs, or other land use project conditions that reduce VMT in a manner consistent with state guidance on VMT reduction. If, through on-site changes, a subject project cannot eliminate VMT impacts, the project could contribute on a pro-rata basis to a local or regional VMT reduction bank or exchange, as necessary, to reduce net VMT impacts.*

C-7.6: *Expand alternatives to driving by increasing opportunities to walk, bike, and use transit.*

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EF-2.3: Prioritize the development of employment-generating uses on sites with vacant buildings or on underutilized commercial, office, and industrial-designated parcels.

EF-2.9: Encourage mixed-use development on vacant and underutilized parcels along the North Main Street and Yosemite Avenue corridors, allowing flexible reaction to changing market conditions.

CF-11.3: Reduce municipal waste generation by increasing recycling, on-site composting, and mulching, where feasible, at municipal facilities, as well as using resource efficient landscaping techniques in new or renovated medians and parks.

CF-11.4: Encourage residential, commercial, and industrial recycling and reuse programs and techniques.

CF-11.5: Coordinate with and support other local agencies and jurisdictions in the region to develop and implement effective waste management strategies and waste-to-energy technologies.

RC-5.1 Ensure that land use and circulation improvements are coordinated to reduce the number and length of vehicle trips.

RC-5.2 Encourage private development to explore and apply non-traditional energy sources such as co-generation, wind, and solar to reduce dependence on traditional energy sources.

RC-5.3 Require all new public and privately constructed buildings to meet and comply with construction and design standards that promote energy conservation, including the most current “green” development standards in the California Green Building Standards Code.

RC-5.4 Support expanded innovative and green building best practices including, but not limited to, LEED certification for all new development and retrofitting existing uses, and encourage public and private projects to exceed the most current “green” development standards in the California Green Building Standards Code.

RC-5.5 Encourage the conservation of public utilities.

RC-5.6 Encourage the conservation of petroleum products.

RC-6.1: Coordinate with the San Joaquin Valley Air Pollution Control District (Air District), San Joaquin Council of Governments, and the California Air Resources Board (State Air Board), and other agencies to develop and implement regional and county plans, programs, and mitigation measures that address cross-jurisdictional and regional air quality impacts, including land use, transportation, and climate change impacts, and incorporate the relevant provisions of those plans into City planning and project review procedures. Also cooperate with the Air District, SJCOG, and State Air Board in:

- *Enforcing the provisions of the California and Federal Clean Air Acts, state and regional policies, and established standards for air quality.*
- *Identifying baseline air pollutant and greenhouse gas emissions.*
- *Encouraging zero emission or alternative fuel for city vehicle fleets, when feasible.*

- *Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.*

RC-6.2: Minimize exposure of the public to toxic or harmful air emissions and odors through requiring an adequate buffer or distance between residential and other sensitive land uses and land uses that typically generate air pollutants, toxic air contaminants, or obnoxious fumes or odors, including but not limited to industrial, manufacturing, and processing facilities, highways, and rail lines and, where uses or facilities pose substantial health risks, ensure that a Health Risk Assessment is conducted to identify and mitigate exposure to toxic air contaminants.

RC-6.3: Ensure that new construction is managed to minimize fugitive dust and construction vehicle emissions.

RC-6.4: Require installation of energy-efficient appliances and equipment, including wood-burning devices, in development projects to meet current standards for controlling air pollution, including particulate matter and toxic air contaminants.

RC-6.5: Require and/or cooperate with the Air District to ensure that burning of any combustible material within the City is consistent with Air District regulations to minimize particulate air pollution.

Actions

LU-1b: Regularly review and revise, as necessary, the Zoning Code to accomplish the following purposes:

- *Ensure consistency with the General Plan in terms of zoning districts and development standards;*
- *Provide for a Downtown zone that permits the vibrant mixing of residential, commercial, office, business-professional, and institutional uses within the Central Business District;*
- *Ensure adequate buffers and transitions are required between intensive uses, such as industrial and agricultural industrial, and sensitive receptors, including residential uses and schools; and*
- *Provide for an Agricultural Industrial zone that accommodates the processing of crops and livestock.*
- *Ensure that land use requirements meet actual demand and community needs over time as technology, social expectations, and business practices change.*

LU-6a: Consider implementing incentives to support developers who construct vertical mixed-use projects and/or who build housing above non-residential ground-floor uses within Downtown.

LU-6d: Promote the intensified use and reuse of existing suites above ground floors.

LU-9a: Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, and unacceptable levels of noise and vibration are reduced to the extent feasible and that measures to improve quality of life, such as connections to bicycle and pedestrian paths, community services, schools, and recreation facilities, access to healthy foods, and improvement of air quality are included in the project. The review shall address both the construction and operation phases of the project.

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LU-9c: Encourage and support local transit service providers, through input from residents and stakeholders, to increase and expand services for people who are transit-dependent, including seniors, persons with mobility disabilities, and persons without regular access to automobiles by improving connections to regional medical facilities, senior centers, and other support systems that serve residents and businesses.

C-1c: Develop a pedestrian, bicycle, and transit improvement plan for the Downtown area to facilitate implementation of level of service policy C-1.4. This plan will develop a list of multi-modal improvements in the Downtown area through an engaging process inclusive of community members and stakeholders to increase the viability and encourage the use of non-auto modes.

C-2b: When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for more safe travel by all modes that use streets, including autos, transit, pedestrians, and bicycles. Complete streets shall be developed in a context-sensitive manner. For example, it may be more appropriate to provide a Class I bike path instead of bike lanes along a major arterial. Pedestrian districts like Downtown Manteca or areas near school entrances should have an enhanced streetscape (e.g., narrower travel lanes, landscape buffers with street trees, etc.) to better accommodate and encourage pedestrian travel.

C-2f: Ensure that bicycle and pedestrian access is both provided and prioritized through providing openings to increase access where soundwalls and berms are located to minimize travel distances and increase the viability walking and bicycling.

C-2i: Pursue funding to improve and address areas of traffic, bicycle, and pedestrian hazards and conflicts with vehicular traffic movements.

C-4a: Periodically update the Active Transportation Plan through a process inclusive of community members and stakeholders to include all areas envisioned for development by this General Plan and to address pedestrian and bicycle facilities needed to provide a complete circulation system that adequately meets the needs of pedestrians and bicyclists.

C-4b: Utilize the standards set forth in the latest editions of the California MUTCD and American Association of State Highway and Transportation Officials (AASHTO) Green Book for improvement and re-striping of appropriate major collector and arterial streets to accommodate Class II bike lanes or Class IV protected bikeways in both directions, where sufficient roadway width is available. This may include narrowing of travel lanes.

C-4d: Add bicycle facilities whenever possible in conjunction with road rehabilitation, reconstruction, or re-striping projects.

C-4e: Update the City's standard plans to accommodate pedestrians and bicyclists, including landscape-separated sidewalks where appropriate, and to include bike lanes on collector and arterial streets, as defined by the Active Transportation Plan.

C-4f: Encourage and facilitate resident and visitor use of the bike trail system by preparing a map of the pedestrian and bike paths and implementing wayfinding signage.

C-4g: Update the standard plans to specify a set of roadways with narrower lanes (less than 12 feet) and pedestrian bulb-outs to calm traffic and increase pedestrian and bicycle comfort. These narrow lane standards shall be applied to appropriate streets (e.g., they shall not be applied to outside lanes on major truck routes) and new development.

C-5a: Periodically review transit needs in the city through a process inclusive of community members and stakeholders and adjust bus routes to accommodate changing land use and transit

demand patterns. The City shall also periodically coordinate with the San Joaquin Regional Transit District to assess the demand for regional transit services.

C-5b: Explore a transit connections study that would identify improvements to connections and access to the existing ACE station, the Manteca Transit Center, and future planned transit stations.

C-5c: Update the City's standard plans to include the option for bus turnouts at intersections of major streets.

C-5d: Review and consider alternatives to conventional bus systems, such as smaller shuttle buses (i.e. micro-transit), on-demand transit services, or transportation networking company services that connect neighborhood centers to local activity centers with greater cost efficiency.

C-5e: Work with the school districts to identify and implement opportunities for joint-use public transit that would provide both student transportation and local transit service.

C-5f: Through the development review process, ensure that projects provide increased land use densities and mixed uses, consistent with the Land Use Element to enhance the feasibility of transit and promote alternative transportation modes.

C-5g: Along fixed route corridors, require that new development to be compatible with and further the achievement of the Circulation Element. Requirements for compatibility may include but are not limited to:

- *Orienting pedestrian access to transit centers and existing and planned transit routes.*
- *Orienting buildings, walkways, and other features to provide pedestrian access from the street and locating parking to the side or behind the development, rather than separating the development from the street and pedestrian with parking.*
- *Providing clearly delineated routes through parking lots to safely accommodate pedestrian and bicycle circulation.*

C-5h: Review and update the City's funding programs to provide for adequate transit services, including funding for capital, operations, and maintenance, commensurate with growth of the City.

C-7a: Provide information about transit services, ridesharing, vanpools, and other transportation alternatives to single occupancy vehicles at City Hall, the library, on the City website, and through other channels.

C-7b: Develop TDM program requirements with consideration of addressing CEQA vehicle miles traveled impact analysis requirements (i.e., SB 743) in accordance with implementation measure C-1c. TDM programs shall include measures to reduce total vehicle miles traveled and peak hour vehicle trips. A simplified version of the Air District's Rule 9410 could be used to implement this measure.

C-7c: Coordinate with the San Joaquin Council of Governments on a Congestion/Mobility Management Program to identify TDM strategies to reduce VMT and mitigate peak-hour congestion impacts. Strategies may include: growth management and activity center strategies, telecommuting, increasing transit service frequency and speed, transit information systems, subsidized and discount transit programs, alternative work hours, carpooling, vanpooling, guaranteed ride home program, parking management, addition of general purpose lanes, channelization, computerized signal systems, intersection or midblock widenings, and Intelligent Transportation Systems.

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C-7d: Proposed development projects shall incorporate measures to reduce VMT, including consideration of the measures listed below. This list is not intended to be exhaustive, and not all measures may be feasible, reasonable, or applicable to all projects. The purpose of this list is to identify options for future development proposals, not to constrain projects to this list, or to require that a project examine or include all measures from this list. Potential measures, with possible ranges of VMT reduction for a project, include:*

- Increase density of development (up to 10.75 percent)
- Increase diversity of land uses (up to 12 percent)
- Implement car-sharing programs (up to 5 percent)
- Implement parking management and pricing (up to 6 percent)
- Implement subsidized or discounted transit program (up to 0.7 percent)
- Implement commute trip reduction marketing and launch targeted behavioral interventions (up to 3 percent)
- Participating in local or regional carpool matching programs**
- Providing preferential carpool and vanpool parking**
- Providing secure bicycle parking, showers, and lockers at work site**

*Note: VMT reduction ranges based on Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association (2010), and new research compiled by Fehr & Peers (2020). Additional engineering analysis is required prior to applying reductions to specific projects. Actual reductions will vary by project and project context.

**Reduction determined at the project-level

C-7e: Partner with SJCOG, San Joaquin County, and neighboring cities to evaluate a potential regional VMT impact fee program, bank, or exchange.

C-7f: Implement the Active Transportation Plan and other Bikeway and Pedestrian Systems goals and policies (C-4).

C-7g: Expand transit service and increase transit frequency and implement Public Transit goals and policies (C-5).

RC-4a: Continue to assess and monitor performance of greenhouse gas emissions reduction efforts, including progress toward meeting longer-term GHG emissions reduction goals for 2035 and 2050 by reporting on the City's progress annually, updating the Climate Action Plan and GHG inventory regularly to demonstrate consistency with State-adopted GHG reduction targets, including those targets established beyond 2020, and updating the GHG Strategy in the General Plan, as appropriate.

RC-5a: Implement development standards and best practices that promote energy conservation and the reduction in greenhouse gases, including:

- Require new development to be energy-efficient through passive design concepts (e.g., techniques for heating and cooling, building siting orientation, street and lot layout, landscape placement, and protection of solar access;
- Require construction standards which promote energy conservation including window placement, building eaves, and roof overhangs;
- Require all projects to meet minimum State and local energy conservation standards;

- *Require developments to include vehicle charging stations that meet or exceed the requirements of State law and to include outdoor electrical outlets to reduce the need for portable generators or other portable power sources, including for residential, commercial, industrial, park, and public/quasi-public uses;*
- *Require best practices in selecting construction methods, building materials, project appliances and equipment, and project design;*
- *Encourage and accommodate projects that incorporate alternative energy;*
- *Encourage projects to incorporate enhanced energy conservation measures, electric-only appliances, and other voluntary methods of reducing energy usage and greenhouse gas emissions; and*
- *Require large energy users to implement an energy conservation plan as part of the project review and approval process, and develop a program to monitor compliance with and effectiveness of that plan.*

RC-5b: Continue to review development projects to ensure that all new public and private development complies with or exceeds the California Code of Regulations, Title 24 standards as well as the energy efficiency standards established by the General Plan and the Municipal Code.

RC-5b: Develop a public education program to increase public participation in energy conservation.

RC-5d: Connect residents and businesses with programs that provide free or low-cost energy efficiency audits and retrofits to existing buildings.

RC-5e: Update the Municipal Code to incentivize the use of small-scale renewable energy facilities and, where appropriate, to remove impediments to such uses.

RC-5f: Cooperate with other agencies, jurisdictions, and organizations to expand energy conservation programs.

RC-5g: Explore alternative energy sources, including co-generation, active solar energy, and wind generation, and identify opportunities for alternative energy to be used in public and private projects.

RC-5h: Implement transportation measures, as outlined in the Circulation Element, which reduce the need for automobile use and petroleum products.

RC-6a: Work with the Air District to implement the Air Quality Management Plan (AQMP).

- *Cooperate with the Air District to develop consistent and accurate procedures for evaluating project-specific and cumulative air quality impacts.*
- *Cooperate with the Air District and the State Air Board in their efforts to develop a local airshed model.*
- *Cooperate with the Air District in its efforts to develop a cost/benefit analysis of possible control strategies (mitigation measures to minimize short and long-term stationary and area source emissions as part of the development review process, and monitoring measures to ensure that mitigation measures are implemented.*

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RC-6b: Review development, land use, transportation, and other projects that are subject to CEQA for potentially significant climate change and air quality impacts, including toxic and hazardous emissions and require that projects provide adequate, appropriate, and cost-effective mitigation measures reduce significant and potentially significant impacts. This includes, but is not limited to, the following:

- *Use of the Air District “Guide for Assessing and Mitigating Air Quality Impacts”, as may be amended or replaced from time to time, in identifying thresholds, evaluating potential project and cumulative impacts, and determining appropriate mitigation measures;*
- *Contact the Air District for comment regarding potential impacts and mitigation measures as part of the evaluation of air quality effects of discretionary projects that are subject to CEQA;*
- *Require projects to participate in regional air quality mitigation strategies, including Air District-required regulations, as well as recommended best management practices when applicable and appropriate ;*
- *Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *The use of energy efficient lighting (including controls) and process systems beyond Title 24 requirements shall be encouraged where practicable (e.g., water heating, furnaces, boiler units, etc.);*
- *The use of energy efficient automated controls for air conditioning beyond Title 24 requirements shall be encouraged where practicable; and*
- *Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winds;*
- *The developer of a sensitive air pollution receptor shall submit documentation that the project design includes appropriate buffering (e.g., setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor;*
- *Identify sources of toxic air emissions and, if appropriate, require preparation of a health risk assessment in accordance with Air District-recommended procedures; and*
- *Circulate the environmental documents for projects with significant air quality impacts to the Air District for review and comment.*

RC-6c: Review area and stationary source projects that could have a significant air quality impact, either individually or cumulatively, to identify the significance of potential impacts and ensure that adequate air quality mitigation is incorporated into the project, including:

- *The use of best available and economically feasible control technology for stationary industrial sources;*
- *All applicable particulate matter control requirements of Air District Regulation VIII;*
- *The use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *Provision of adequate electric or natural gas outlets to encourage use of natural gas or electric barbecues and electric gardening equipment; and*
- *Use of alternative energy sources.*

RC-6d: Maintain adequate data to analyze cumulative land use impacts on air quality and climate change. This includes tracking proposed, planned, and approved General Plan amendments,

development, and land use decisions so that projects can be evaluated for cumulative air quality impacts, including impacts associated with transportation and land use decisions.

Hazards and Hazardous Materials

IMPACT 3.8-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT CREATE A SIGNIFICANT HAZARD TO THE PUBLIC OR THE ENVIRONMENT THROUGH THE ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS, OR THROUGH REASONABLY FORESEEABLE UPSET AND ACCIDENT CONDITIONS INVOLVING THE RELEASE OF HAZARDOUS MATERIALS INTO THE ENVIRONMENT (LESS THAN SIGNIFICANT)

Alternative D does not propose or allow any uses that are not allowed under the proposed General Plan. This alternative emphasizes an increase in residential development, including multifamily, and a decrease in commercial and employment-generating industrial and professional land use designations to reduce total vehicle miles travelled.

Future development, infrastructure, and other projects allowed under both the proposed General Plan and Alternative D may involve the transportation, use, and/or disposal of hazardous materials. Hazardous materials are typically used in industrial, and commercial uses, as well as residential uses. Future uses may involve the transport and disposal of such materials from time to time. Future activities may involve equipment or construction activities that use hazardous materials (e.g., coatings, solvents and fuels, and diesel-fueled equipment), cleanup of sites with known hazardous materials, the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated, or disposal of contaminated materials at an approved disposal site. While hazardous materials may be associated with industrial activities, hazardous materials may also be associated with the regular cleaning and maintenance of residential and other less intense uses. Accidental release of hazardous materials that are used in the construction or operation of a project may occur. There is also the potential for accidental release of pre-existing hazardous materials, associated with previous activities on a site.

It is noted that, as part of Alternative D, policy area is applied to the area around the Lovelace Transfer Station, creating a node of Industrial, Business Industrial Park, Public/Quasi-Public Uses, Medium Density Residential, and High Density Residential uses and also removing the potential for residential uses within 500 feet of the Lovelace Transfer Station, providing for a transition of Business Industrial Park uses to residential uses south of Lovelace Road between Airport Way and Union Road.

The use, transportation, and disposal of hazardous materials is regulated and monitored by local fire departments, CUPAs, the Cal OSHA and the DTSC consistent with the requirements of Federal, State, and local regulations and policies. Facilities that store hazardous materials on-site are required to maintain a Hazardous Materials Business Plan in accordance with State regulations. In the event of an accidental release of hazardous materials, the local CUPA and emergency management agencies (e.g., Police and Fire) would respond. All future projects allowed under both the proposed General Plan and Alternative D would be required to comply with the provisions of Federal, State, and local requirements related to hazardous materials. As future

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development and infrastructure projects are considered by the City, each project would be evaluated for potential impacts, specific to the project, associated with hazardous materials as required under CEQA.

In addition to the requirements associated with Federal and State regulations and the Municipal Code, both the proposed General Plan and Alternative D include policies and actions to minimize the potential for impacts associated with hazardous materials among other issues. These policies and actions, which are listed below for Alternative D, would ensure that potential hazards are identified on a project site, that development is located in areas where potential exposure to hazards and hazardous materials can be mitigated to an acceptable level, and that business operations comply with Federal and State regulations regarding the use, transport, storage, and disposal of hazardous materials. Alternative D also includes policies and actions to ensure that the City has adequate emergency response plans and measures to respond in the event of an accidental release of a hazardous substance.

Overall, impacts associated with the routine use, transport, storage, or disposal or accidental release of hazardous materials would be ***less than significant***, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

S-4.1: *Maintain an awareness of hazardous materials throughout the Manteca region.*

S-4.2: *Strictly regulate the production, use, storage, transport, and disposal of hazardous materials to protect the health and safety of Manteca residents.*

S-4.3: *As part of the development review process, consider the potential for the production, use, storage, transport, and/or disposal of hazardous materials and provide for appropriate controls on such hazardous materials consistent with federal, state, and local standards.*

S-4.4: *Use the environmental review process to comment on Hazardous Waste Transportation, Storage and Disposal Facilities proposed in the Manteca Planning Area and throughout the County to request a risk assessment and ensure that potentially significant, widespread, and long-term impacts on public health and safety of these facilities are identified and mitigated, as such impacts do not respect jurisdictional boundaries.*

Actions

S-4a: *As part of the development review process, require projects that result in significant risks associated with hazardous materials to include measures to address the risks and reduce the risks to an acceptable level.*

S-4b: *Review development proposals to address proximity of users and transporters of significant amounts of hazardous materials relative to sensitive uses, such as schools and residential neighborhoods.*

S-4c: Continue to require the submittal of information regarding hazardous materials manufacturing, storage, use, transport, and/or disposal by existing and proposed businesses and developments to the Manteca Fire Department.

S-4d: Annually coordinate with the Manteca Fire Department and 911 dispatch center to ensure that the City maintains a current database of hazardous materials.

S-4e: Coordinate with the Manteca Fire Department, other local agencies, and Union Pacific Railroad to strictly regulate and enforce the use, storage, transport, and/or disposal of hazardous materials under California Administrative Code Title 19 requirements.

S-4f: Continue to work with San Joaquin County and other public agencies to inform consumers about household use and disposal of hazardous materials.

S-4g: Cooperate fully with Union Pacific Railroad and other agencies, such as the California Highway Patrol, in the event of a hazardous material emergency.

S-4h: Continue the City hazardous waste pick-up program for household hazardous materials.

IMPACT 3.8-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT EMIT HAZARDOUS EMISSIONS OR HANDLE HAZARDOUS OR ACUTELY HAZARDOUS MATERIALS, SUBSTANCES, OR WASTE WITHIN ONE-QUARTER MILE OF AN EXISTING OR PROPOSED SCHOOL (LESS THAN SIGNIFICANT)

The Manteca Unified School District (MUSD) provides school services for grades K through 12 within the communities of Manteca, Lathrop, Stockton, and French Camp. The District is approximately 113 square miles and serves more than 23,500 students. Within the City of Manteca, there are thirteen schools serving elementary age and middle school students (grades K-8), one K-6 school, four high schools (grades 9-12), one 7-12, and one vocational high school (grades 11-12). Table 3.8-6 in Section 3.8 lists MUSD schools in Manteca grades serves location and the most recent enrollment for each school.

Both the proposed General Plan and Alternative D Land Use Elements include land use designations, but do not propose actual development projects, businesses, or school facilities. As such, it is not possible to determine if a specific use will result in hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste in proximity to a school site. The land use designations with the highest possibility of having businesses that result in hazardous emissions or require handling of hazardous or acutely hazardous materials, substances, or waste would be business industrial park, business park, commercial, industrial, and agricultural industrial uses. Some of these uses would likely occur within ¼ mile of an existing school. Each of these uses may use a variety of hazardous materials commonly found in urban areas including: paints, cleaners, and cleaning solvents. If handled appropriately, these materials do not pose a significant risk. The Business Industrial Park land use designation generally provides for sites for large uses in an office park environment that would include multi-tenant building. Allowed uses include administrative, offices, research and development, light industrial, including manufacturing and assembly, and commercial storage. The Business Professional land use designation for professional and administrative offices, medical and dental clinics, laboratories,

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financial institutions, public and quasi-public uses, and similar and compatible uses. The Commercial land use designation generally provides for a variety of neighborhood, community, and regional-serving retail and service uses; offices; restaurants; service stations; highway-oriented and visitor commercial and lodging; auto-serving and heavy commercial uses; wholesale; warehousing; public and quasi-public uses; commercial recreation and public gathering facilities, such as amphitheaters or public gardens; and similar and compatible uses. The Industrial designation provides for manufacturing, processing, assembling, research, wholesale, and storage uses, trucking terminals, railroad and freight stations, industrial parks, warehouses, distribution centers, light manufacturing, public and quasi-public uses and similar and compatible uses. The Agricultural Industrial land use provides for limited industrial uses directly related to agriculture and compatible uses, such as wineries, food packaging and processing, storage of food and beverages processed on-site, agricultural education, and agricultural research and development.

As noted previously, Alternative D does not propose or allow any uses that are not allowed under the proposed General Plan. This alternative emphasizes an increase in residential development and a decrease in commercial and employment-generating industrial and professional land use designations to reduce total vehicle miles travelled. This alternative is not anticipated to directly lead to the establishment of new businesses that would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste because the General Plan does not approve any specific development project. However, given the unknown nature of future business establishments within the commercial and industrial use areas, the potential for hazardous materials is present.

Nevertheless, similar to the proposed General Plan, all hazardous materials would be required to be handled in accordance with Federal, State, and County requirements, which would limit the potential for a project to expose nearby uses, including schools, to hazardous emissions or an accidental release. Hazardous emissions are monitored by the SJVAPCD, RWQCB, DTSC and the local CUPA (San Joaquin County). In the event of a hazardous materials spill or release, notification and cleanup operations would be performed in compliance with applicable Federal, State, and local regulations and policies, including hazard mitigation plans. As part of the development review process, the policies and requirements, listed below, require projects that may result in significant risks associated with hazardous materials to include measures to address and reduce the risks to an acceptable level such that surrounding uses are not exposed to hazardous materials in excess of adopted state and federal standards, and also require the submittal of information regarding hazardous materials manufacturing, storage, use, transport, and/or disposal by existing and proposed businesses and developments to the Manteca Fire Department. Compliance with all existing regulations as well as policies and actions related to land use compatibility and hazardous materials would ensure that the impact is *less than significant*, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

S-4.1: *Maintain an awareness of hazardous materials throughout the Manteca region.*

S-4.2: Strictly regulate the production, use, storage, transport, and disposal of hazardous materials to protect the health and safety of Manteca residents.

S-4.3: As part of the development review process, consider the potential for the production, use, storage, transport, and/or disposal of hazardous materials and provide for appropriate controls on such hazardous materials consistent with federal, state, and local standards.

S-4.4: Use the environmental review process to comment on Hazardous Waste Transportation, Storage and Disposal Facilities proposed in the Manteca Planning Area and throughout the County to request a risk assessment and ensure that potentially significant, widespread, and long-term impacts on public health and safety of these facilities are identified and mitigated, as such impacts do not respect jurisdictional boundaries.

Actions

S-4a: As part of the development review process, require projects that result in significant risks associated with hazardous materials to include measures to address the risks and reduce the risks to an acceptable level.

S-4b: Review development proposals to address proximity of users and transporters of significant amounts of hazardous materials relative to sensitive uses, such as schools and residential neighborhoods.

S-4c: Continue to require the submittal of information regarding hazardous materials manufacturing, storage, use, transport, and/or disposal by existing and proposed businesses and developments to the Manteca Fire Department.

S-4d: Annually coordinate with the Manteca Fire Department and 911 dispatch center to ensure that the City maintains a current database of hazardous materials.

S-4e: Coordinate with the Manteca Fire Department, other local agencies, and Union Pacific Railroad to strictly regulate and enforce the use, storage, transport, and/or disposal of hazardous materials under California Administrative Code Title 19 requirements.

S-4f: Continue to work with San Joaquin County and other public agencies to inform consumers about household use and disposal of hazardous materials.

IMPACT 3.8-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT HAVE PROJECTS LOCATED ON A SITE WHICH IS INCLUDED ON A LIST OF HAZARDOUS MATERIALS SITES COMPILED PURSUANT TO GOVERNMENT CODE SECTION 65962.5 (LESS THAN SIGNIFICANT)

Because Alternative D is located in the same area as the proposed General Plan Planning Area, the same hazardous sites and conditions exist. There are no hazardous materials release sites compiled pursuant to Government Code Section 65962.5 located in the Planning Area.

There are 19 locations with a Manteca address that are listed in the Envirostor database. Ten sites are listed as school investigation sites with no action required, one site is listed as a school investigation site which requires further evaluation, two sites were listed as active and are under state cleanup programs, two sites were listed as no further action, two sites were listed as inactive and need further evaluation, one site was referred to the RWQCB, and one site is a voluntary

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cleanup site that has land use restrictions. As shown in Section 3.8, Table 3.8-1 lists the active sites and the inactive (needs evaluation or action required) sites within Manteca. The hazardous sites in the Alternative D Planning Area are shown in Figure 5.0-12. Because the Planning Area for Alternative D is contained within the Planning Area for the proposed General Plan, the documented hazardous sites are also the same.

There are 60 locations within Manteca (i.e., with a Manteca address) that are listed in the GeoTracker database. Fifty-eight of the locations have undergone LUST cleanup and the State has closed the case. There two six locations in Manteca with an open case. As shown in Section 3.8, Table 3.8-2 lists the location of the open and closed cases for LUSTs in Manteca.

The City of Manteca has seven solid waste facilities listed in the SWIS database, four of which are active. The first active facility is the Lovelace Transfer Station (39-AA-0008), a large volume transfer and processing operation located at 2323 Lovelace Road. The second active facility is the Forward Landfill, Inc. (39-AA-0015), an active solid waste landfill, located at 9999 S. Austin Road. The third active facility is the Forward Resource Recovery Facility (39-AA-0020), a large volume transfer and processing facility at 9999 N. Austin Road. The fourth active facility is the Delicato Vineyards (39-AA-0037), a compositing operation located at 12001 S. Highway 99.

The above-mentioned sites are subject to various Federal and State laws and regulatory agencies, including the CERCLA, EPA, DTSC, and RWQCB. Development allowed by both the General Plan and Alternative D could create a hazard to the public or the environment through a disturbance or release of contaminated materials if the development occurs on or adjacent to contaminated sites without appropriate measures to contain or mitigate the existing contamination.

Federal and State regulations ensure that existing hazards, including those associated with known hazardous materials sites, are addressed prior to development. Compliance with Federal and State regulations would ensure that potential impacts associated with the hazardous conditions on sites listed pursuant to Government Code Section 65962.5 would be *less than significant*, similar to the proposed General Plan.

IMPACT 3.8-4: ALTERNATIVE D IS NOT LOCATED WITHIN AN AIRPORT LAND USE PLAN, TWO MILES OF A PUBLIC AIRPORT OR PUBLIC USE AIRPORT, AND WOULD NOT RESULT IN A SAFETY HAZARD FOR PEOPLE RESIDING OR WORKING IN THE PROJECT AREA (LESS THAN SIGNIFICANT)

As discussed in Section 3.8, hazards related to airports are typically grouped into two categories: air hazards and ground hazards. Air hazards jeopardize the safety of an airborne aircraft and expose passengers, pilots, and crews to danger. Examples of air hazards include tall structures, glare-producing objects, bird and wildlife attractants, radio waves from communication centers, or other features that have the potential to interfere with take-off or landing procedures, posing a risk to aircraft. Ground hazards jeopardize the safety of current and future residents and/or workers in the vicinity of an airport. The most obvious ground hazard is a crash, which may produce a serious, immediate risk to those residing in or using areas adjacent to the airport. Most accidents occur during take-off and landing. Therefore, the higher the density around an airport, including transportation facilities, the higher the risk associated with this type of hazard.

There are no airport facilities located within the General Plan or Alternative D Planning Areas. The nearest airport facilities within the vicinity of the Planning Area are the Stockton Metropolitan Airport, located approximately 3.5 miles north of the Manteca City limits, and the New Jerusalem Airport, located approximately 6.5 miles southwest of the Manteca City limits.

The General Plan or Alternative D Planning Areas are located outside of the airport influence areas for the New Jerusalem Airport; therefore, it is not anticipated that this airport would pose a hazard to people residing or working in the General Plan or Alternative D Planning Areas.

As shown in Figure 5.0-13, the northernmost portion of the Alternative D Planning Area is located within the airport influence area for the Stockton Metropolitan Airport identified in the ALUCP. The majority of this land within the airport influence area is zoned for agricultural uses by the City's General Plan 2023. Other land uses within the airport influence area include park, industrial, commercial, public, low density residential, and medium density residential.

The lands within the Planning Area that are located in the airport influence area for the Stockton Metropolitan Airport are not within the Airport's noise exposure contours. The lands within both the proposed General Plan and Alternative D Planning Areas that are located in the airport influence area are within three of the Airport's Safety Zones: Traffic Pattern Zone 7a, 7b, and Zone 8. Lands within Traffic Pattern Zone 7a and 7b cannot be developed with non-residential intensities greater than 450 persons per acre and must have open land over 10% of the site. Additionally, uses within Traffic Pattern Zone 7a cannot be hazardous to flight, include waterways that create a bird hazard, and outdoor stadiums are prohibited. Similarly, uses within Traffic Pattern Zone 7b cannot be hazardous to flight, and outdoor stadiums are prohibited. Non-residential development on land within Traffic Pattern Zone 8 is not subject to a maximum intensity or open space requirement. Airspace review is required for development greater than 100 feet tall on lands within Zone 7a, 7b or Zone 8. Similarly, new dumps or landfills within Zone 7a, 7b, or Zone 8 are subject to the FAA notification and review and are further subject to restrictions and conditions outlined by the FAA.

As shown in Figure 5.0-13, the Alternative D Land Use Map would place a variety of land uses within the airport influence area for the Stockton Metropolitan Airport, including Agricultural Industrial, Agriculture, Commercial, Commercial Mixed Use, Very Low Density Residential, Low Density Residential, Medium Density Residential, High Density Residential, Business Park Industrial, Business Professional, Industrial, and Park uses. Overall, these proposed land uses are generally consistent with the Stockton Metropolitan Airport ALUCP; however, the Commercial and Public/Quasi-Public land use designations located within Traffic Pattern Zones 7a and 7b could potentially conflict with the Stockton Metropolitan Airport ALUCP. The Commercial land use designations allows public gathering facilities, such as amphitheaters. Additionally, the Public-Quasi-Public land use designation allows commercial recreation uses, including public and private parks, beach and water access, recreation fields. Both the General Plan and Alternative D include Commercial land use designations within Zones 7a and 7b.

Both the General Plan and Alternative D were prepared to include numerous policies and actions intended to ensure future developments are consistent with the Stockton Metropolitan ALUCP.

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General Plan Policy LU-2.10 requires development within the Stockton Metropolitan Airport Influence Area to be consistent with the compatible uses identified in the Project Review Guidelines for the Airport Land Use Commission. As described above, lands within the Planning Area include lands within Zone 7 (traffic pattern zone) and Zone 8 (airport influence area). Additionally, General Plan Action LU-2i requires all applications for development within the Stockton Metro Airport Area of Influence to be referred to the ALUC and the Stockton Metro Airport for comment to ensure that all future plans have limited impacts to the community of Manteca. Implementation of the policies and actions discussed above and listed below, as well as Federal and State regulations, would ensure that these impacts are minimized and **less than significant**, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

LU-2.10: Ensure that development within the Stockton Metropolitan Airport Influence Area (Figure LU-3) is consistent with the compatible uses identified in the Project Review Guidelines for the Airport Land Use Commission. Lands within the Planning Area include lands within Zone 7 (traffic pattern zone) and Zone 8 (airport influence area).

Actions

LU-2i: Refer all applications for development within the Stockton Metro Airport Area of Influence to the Airport Land Use Commission and the Stockton Metro Airport for comment.

IMPACT 3.8-5: ALTERNATIVE D IMPLEMENTATION WOULD NOT IMPAIR IMPLEMENTATION OF OR PHYSICALLY INTERFERE WITH AN ADOPTED EMERGENCY RESPONSE PLAN OR EMERGENCY EVACUATION PLAN (LESS THAN SIGNIFICANT)

Both the General Plan and Alternative D would allow a variety of new development, including residential, commercial, industrial, and public projects, which would result in increased jobs and population in Manteca. Road and infrastructure improvements would occur to accommodate the new growth. Future development and infrastructure projects are not anticipated to remove or impede any established evacuation routes within the City. Furthermore, Alternative D does not include land uses, policies, or other components that conflict with adopted emergency response or evacuation plans. However, given that the type, location, and size of future development and infrastructure projects is not known at this time, there is the potential that the City could receive a development proposal that could potentially interfere with an established emergency evacuation route or plan.

Both the General Plan and Alternative D ensures that the City's emergency access routes, emergency contact lists, and public information regarding designated facilities and routes are regularly reviewed to ensure that up to date information is available to the City and the public in the event of an emergency. Important new critical facilities would be located to ensure resiliency in the event of a natural disaster. Overall, this impact would be **less than significant**, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts*Policies*

S-1.1: Maintain and periodically update the City's Emergency Plan.

S-1.2: Ensure the availability and functionality of critical facilities during flooding events.

S-1.3: Locate new critical City facilities, and promote the location of non-City critical facilities, including hospitals, emergency shelters, emergency response centers, and emergency communications facilities, outside of flood hazard zones and geologic hazard areas where feasible. Critical facilities that are, or must be, located within flood hazard zones or areas with geologic hazards should incorporate feasible site design or building construction features to mitigate potential risks, including those associated with geologic, seismic, and flood events, to ensure accessibility, operation, and structural integrity, during an emergency and to minimize damage to the facility.

S-1.4: Encourage community awareness of seismic, flooding, and other disaster safety issues, including building safety, emergency response plans, and understanding steps to take for safety during and after a disaster, including identified evacuation routes.

S-1.5: Continue to cooperate with San Joaquin County and other public agencies in implementing the Countywide Emergency Preparedness Plan and Local Hazard Mitigation Plan.

S-1.6: Provide community resources, including information and education related to disaster, climate adaptation, and evacuation planning and resources, to address disasters, hazardous events, and climate resiliency planning

S-1.7: Increase energy reliability and prepare for power outages, including planning for public safety power shut offs and increasing backup power options.

Actions

S-1a: Regularly conduct periodic emergency response exercises to test the effectiveness of City emergency response procedures.

S-1b: Regularly review County and State emergency response procedures that must be coordinated with City procedures.

S-1c: Cooperate with San Joaquin County OES, Manteca Fire Department, Lathrop Manteca Fire District, Manteca Police Services, the reclamation districts, and other agencies with responsibility for emergency management in emergency response and climate adaptation planning, training and provision of logistical support.

IMPACT 3.8-6: ALTERNATIVE D IMPLEMENTATION WOULD NOT EXPOSE PEOPLE OR STRUCTURES TO A SIGNIFICANT RISK OF LOSS, INJURY OR DEATH INVOLVING WILDLAND FIRES (LESS THAN SIGNIFICANT)

Wildfires are a potential hazard to development and land uses located in the foothill and forested areas of the city. The severity of wildfire problems depends on a combination of vegetation, climate, slope, and people. The vegetation and topography found in the eastern portions of the Planning Area, coupled with hot, dry summers, present fire hazards during critical fire periods for

much of the county. In addition to natural factors such as lightning, human activity is a primary factor contributing to the incidence of wildfires. Campfires, smoking, debris burning, arson, public utility infrastructure, and equipment use are common human-related causes of wildfires.

The City of Manteca is not categorized as a “Very High” FHSZ and no cities or communities within San Joaquin County are categorized as a “Very High” FHSZ by CalFire. The majority of the Planning Area is not located within an LRA and categorized as Urban Unzoned or Non-Wildland/Non-Urban. Because the Planning Area for Alternative D is contained within the Planning Area for the proposed General Plan, the fire hazards are also the same. It should be noted that there are no State Responsibility Areas or Federal Responsibility Areas within the vicinity of the Alternative D Planning Area.

Fire threat determinations is a combination of two factors: 1) fire frequency, or the likelihood of a given area burning, and 2) potential fire behavior (hazard). These two factors are combined to create four threat classes ranging from moderate to extreme. Fire threat can be used to estimate the potential for impacts on various assets and values susceptible to fire. Impacts are more likely to occur and/or be of increased severity for the higher threat classes. As shown on Figure 5.0-14, similar to the proposed General Plan Planning Area, the Alternative D Planning Area contains tiny concentrations of land categorized as high fire threat to people generally found along Lathrop Road, the intersection of Union Road and State Route 120, and various locations generally along the City Limits; however, it should be noted that the majority of the Planning Area within Manteca is considered to have no fire threat with some concentrations of land considered to have a low to moderate fire threat to people. The majority of the land with a low to moderate fire threat to people is located in the southeast corner of the Planning Area, at the intersections along State Route 120, and generally along the City Limits and Highway 99.

Development under both the General Plan and Alternative D would allow development to place people and/or structures in undeveloped areas that are identified as having a low to moderate risk of wildland fires. Alternative D includes policies and actions, listed below, for adequate water supply and water flow availability, ensuring adequate emergency access, adequate fire protection services, fire safe design site standards, and ensuring public awareness regarding fire safety. All future projects would be required to comply with the provisions of Federal, State, and local requirements related to wildland fire hazards, including State fire safety regulations associated with wildland-urban interfaces, fire-safe building standards, and defensible space requirements. As future development and infrastructure projects are considered by the City, each project would be evaluated for potential impacts, specific to the project, associated with wildland fire hazards as required under CEQA. Overall, this impact would be ***less than significant***, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

CF-3.1: *Through adequate staffing and station locations, maintain a maximum five-minute travel response time 90% of the time for fire and emergency calls and an overall fire insurance (ISO)*

rating of 2 or better for all developed areas within the City, and a minimum staffing of 3 personnel for all fire stations.

CF-3.2: Provide fire services to serve the existing and projected population.

CF-3.3: Periodically review, and if necessary, amend the criteria for determining the circumstances under which fire service will be enhanced.

CF-3.4: Design and maintain roadways in such a way so as to maintain acceptable emergency vehicle response times.

CF-3.5: Ensure that new development is designed, constructed, and equipped consistent with the requirements of the California Fire Code in order to minimize the risk of fire.

CF-3.6: Ensure that new development is served with adequate water volumes and water pressure for fire protection.

S-1.1: Maintain and periodically update the City's Emergency Plan.

S-1.4: Encourage community awareness of seismic, flooding, and other disaster safety issues, including building safety, emergency response plans, and understanding steps to take for safety during and after a disaster, including identified evacuation routes.

S-1.5: Continue to cooperate with San Joaquin County and other public agencies in implementing the Countywide Emergency Preparedness Plan and Local Hazard Mitigation Plan.

S-1.6: Provide community resources, including information and education related to disaster, climate adaptation, and evacuation planning and resources, to address disasters, hazardous events, and climate resiliency planning.

S-2.8: Require compliance with the State's building standards in the design and siting of critical facilities, including police and fire stations, school facilities, hospitals, hazardous materials manufacturing and storage facilities, and large public assembly halls.

Actions

S-1a: Regularly conduct periodic emergency response exercises to test the effectiveness of City emergency response procedures.

S-1b: Regularly review County and State emergency response procedures that must be coordinated with City procedures.

S-1c: Cooperate with San Joaquin County OES, Manteca Fire Department, Lathrop Manteca Fire District, Manteca Police Services, the reclamation districts, and other agencies with responsibility for emergency management in emergency response planning, training and provision of logistical support.

S-2b: Review development proposals to ensure compliance with the current State building standards.

S-4a: As part of the development review process, require projects that result in significant risks associated with hazardous materials to include measures to address the risks and reduce the risks to an acceptable level.

Hydrology and Water Quality

IMPACT 3.9-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT VIOLATE WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS OR OTHERWISE SUBSTANTIALLY DEGRADE WATER QUALITY OR OBSTRUCT IMPLEMENTATION OF A WATER QUALITY CONTROL PLAN (LESS THAN SIGNIFICANT)

Construction-Related Water Quality Impacts

Grading, excavation, removal of vegetation cover, and loading activities associated with future construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion impacts that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

As required by the CWA, each subsequent development project or improvement project will require an approved SWPPP that includes best management practices for grading and preservation of topsoil. A SWPPP is not required if the project will disturb less than one acre. SWPPPs are designed to control storm water quality degradation to the extent practicable using best management practices during and after construction.

Future development project applicants must submit the SWPPP with a Notice of Intent to the CVRWQCB to obtain a General Permit. The CVRWQCB is an agency responsible for reviewing the SWPPP with the Notice of Intent, prior to issuance of a General Permit for the discharge of storm water during construction activities. The CVRWQCB accepts General Permit applications (with the SWPPP and Notice of Intent) after specific projects have been approved by the lead agency. The lead agency for each specific project that is larger than one acre is required to obtain a General Permit for discharge of storm water during construction activities prior to commencing construction (per the CWA).

Both the General Plan and Alternative D set policies and actions for build-out of the City, but do not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. However, each future project must include detailed project specific drainage plans that control storm water runoff and erosion, both during and after construction. The CVRWQCB will require a project specific SWPPP to be prepared for each future project that disturbs an area one acre or larger. The SWPPPs will include project specific best management measures that are designed to control drainage and erosion.

New Development-Related Water Quality Impacts

New development and infrastructure improvements projects under the proposed General Plan and Alternative D could introduce constituents into the storm water system that are typically associated with urban runoff. These constituents include sediments, petroleum hydrocarbons, pesticides, fertilizers, and heavy metals such as lead, zinc, and copper. These pollutants tend to build up during the dry months of the year. Precipitation during the early portion of the wet season (generally from November to April) washes away most of these pollutants, resulting in high pollutant concentrations in the initial wet weather runoff. This initial runoff is referred to as the “first flush” of storm events. Subsequent periods of rain would result in less concentrated pollutant levels in the runoff.

The majority of development allowed under both the General Plan and Alternative D would be within areas currently developed with urban uses, and the amount and type of runoff generated by various future development and infrastructure projects would be similar to existing conditions. However, new development and infrastructure projects have the potential to result in increases in the amount of impervious surfaces throughout Manteca. Future increases in impervious surfaces would result in increased urban runoff, pollutants, and first flush roadway contaminants, as well as an increase in nutrients and other chemicals from landscaped areas. These constituents could result in water quality impacts to onsite and offsite drainage flows to area waterways. Because the Planning Area would increase by 473 acres under Alternative D, and the non-residential and residential development potential would increase under this alternative, the potential for water quality impacts resulting from new development would increase compared to the proposed General Plan.

Waters that are listed under Section 303(d) of the CWA are known as “impaired.” CWA Section 303(d) lists many water bodies within the County. Those areas in the regional vicinity of the Planning Area that are impaired by the Water Quality Control Monitoring Council include the: Delta Waterways (Northern Portion), Delta Waterways (Southern Portion), French Camp Slough (Portion), Lone Tree Creek, and Tom Paine Slough (in Delta Waterways Southern Portion). The Delta Waterways (Eastern Portion) includes 2,927 acres listed as in 2011 for Agricultural Return Flows, Atmospheric Deposition, Highway/Road/Bridge Runoff, Industrial Point Sources, Municipal Point Sources, Natural Sources, Resource Extraction, Miscellaneous, Urban Runoff/Storm Sewers. The Delta Waterways (Southern Portion) includes 3,125 acres listed as early as 1996 for Chlorpyrifos (Agriculture, Urban Runoff/Storm Sewers), DDT (Agriculture), Diazinon (Agriculture, Urban Runoff/Storm Sewers), Electrical Conductivity (Agriculture), Group A Pesticides (Agriculture), Invasive Species (Source Unknown), Mercury (Resource Extraction), and Unknown Toxicity (Source Unknown). The other impaired water bodies range in size from 6.3 to 14.8 miles with unknown or agricultural-related pollutant sources.

Storm water runoff may play a role in the water quality impairments described above. Runoff that occurs as overland flow across yards, driveways, and public streets is intercepted by the storm water drainage system and conveyed to local drainages before eventually being routed to the Pacific. This storm water can carry pollutants that can enter the local waterways and result in the

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types of water quality impairments described above. Common sources of storm water pollution in the City include litter, trash, pet waste, paint residue, organic material (yard waste), fertilizers, pesticides, sediments, construction debris, metals from automobile brake pad dust, air pollutants that settle on the ground or attach to rainwater, cooking grease, illegally dumped motor oil, and other harmful fluids.

Due to future development and infrastructure projects, the overall volume of runoff in Manteca could be increased compared to existing conditions. If the City's drainage system is not adequately designed, buildout could result in localized higher peak flow rates. Localized increases in flow would be significant if increases exceeded system capacity or contributed to bank erosion. This is considered a potentially significant impact, which would be mitigated to a less than significant level through the implementation of the policies and actions listed below, as well as the City's adopted Municipal Code requirements.

Both the General Plan and Alternative D set policies and actions for build-out of the City, but do not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. However, each future development and infrastructure project is required to prepare a detailed project specific drainage plan, Water Quality Management Plan, and a SWPPP that will control storm water runoff and erosion, both during and after construction. If the project involves the discharge into surface waters the project proponent will need to acquire a Dewatering permit, NPDES permit, and Waste Discharge permit from the CVRWQCB.

The City is required to implement a range of measures and procedures when reviewing new development and infrastructure projects.

Chapter 13.28 of the City's Municipal Code establishes minimum storm water management requirements and controls and outlines discharges which violate industrial or construction activity NPDES permit. Chapter 15.14 of the City's Municipal Code regulates stormwater quality and prohibits discharges of pollutants into surface waters unless the discharge is authorized by an NPDES storm water discharge permit. Compliance with existing City construction and stormwater management codes, and submittal of a site-specific drainage study and SWPPP, would reduce these potential impacts related to stormwater quality.

While the primary regulatory mechanisms for ensuring that future development and infrastructure projects do not result in adverse water quality impacts are contained in the Manteca Municipal Code, the City of Manteca has developed Alternative D to include additional policies and actions that, when implemented, will further reduce water pollution from construction, new development, and new infrastructure projects, and protect and enhance natural storm drainage and water quality features. The policies and actions identified below include numerous requirements that would reduce the potential to result in increased water quality impacts. Actions by the City during the development review process require the review of development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased beyond pre-

development levels during rain and flood events. In addition, compliance with the CWA and regulations enforced by the Regional Water Quality Control Board would ensure that construction-related impacts to water quality are minimized and future projects comply with all applicable laws and regulations.

The City of Manteca provides and maintains a system of storm drains, detention basins, and pumping facilities as well as monitoring and control of the operations of the storm drain system. The City relies on South San Joaquin Irrigation District's (SSJID's) facilities to convey its storm water runoff to the San Joaquin River. Provision of stormwater detention facilities as needed would reduce runoff rates and peak flows. The implementation of the policies and actions listed below include policies aimed to maximize stormwater quality and infiltration as well as actions to review development projects to identify potential stormwater and drainage impacts and require development to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events. Existing regulatory requirements that manage water quality include requirements to obtain approval from the CVRWQCB for NPDES permits, other discharge permits, SWPPPs, and to implement Best Management Practices. These regulatory requirements are intended to ensure that water quality does not degrade to levels that would violate water quality standards. Through implementation of the policies and actions listed below, implementation of the Manteca Municipal Code requirements identified above, compliance with mandatory Federal and State regulations, and compliance with the existing regulations for the San Joaquin River Hydrological Region would ensure that impacts to drainage patterns and water quality would be ***less than significant***. Because the Planning Area would increase by 473 acres under Alternative D, and the non-residential and residential development potential would increase under this alternative, the potential for water quality impacts resulting from new development would increase compared to the proposed General Plan. This impact would be worse compared to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

RC-1.7: *Maximize stormwater filtration and/or infiltration in areas that are not subject to high groundwater by maximizing the natural drainage patterns and the retention of natural vegetation and other pervious surfaces.*

CF-8.1: *Maintain and improve Manteca's storm drainage facilities.*

CF-8.2: *Require all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants shall mitigate any drainage impacts as necessary and shall demonstrate that the project will not result in any increase in off-site runoff during rain and flood events.*

CF-8.6: *Continue to work cooperatively with outside agencies such as the San Joaquin County Flood Control and Water Conservation District regarding storm drainage issues.*

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Actions

RC-3b: Require site-specific land management and development practices for proposed development projects, including appropriate measures for drainage control and avoiding or reducing erosion.

RC-3c: Continue to implement, and periodically review/update as necessary, Municipal Code Section 17.48.070(G) (Grading Design Plan). The City shall review projects to ensure that best management practices are implemented during construction and site grading activities, as well as in project design to reduce pollutant runoff into water bodies.

CF-8a: Update the Storm Drainage Master Plan and Public Facilities Implementation Plan every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-8b: Continue to complete gaps in the drainage system in areas of existing and future development.

CF-8c: Identify which storm water and drainage facilities are in need of repair and address these needs through the City's Capital Improvement Program.

CF-8d: Continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.

IMPACT 3.9-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT RESULT IN THE DEPLETION OF GROUNDWATER SUPPLIES OR INTERFERE SUBSTANTIALLY WITH GROUNDWATER RECHARGE OR CONFLICT WITH A GROUNDWATER MANAGEMENT PLAN. (LESS THAN SIGNIFICANT)

The quantity of ground water in the San Joaquin Valley has been declining for decades, as evidenced by the substantial lowering of water levels in the aquifers. Impacts on groundwater in the Manteca area are an important consideration in any development plan. See Impact 3.15-1 in Section 3.15, Utilities, for further discussions regarding water demand and groundwater supplies. Impacts related to groundwater supplies and interference with groundwater recharge are considered in two ways: (1) conversion of pervious surfaces (which allow for groundwater recharge), and (2) use of groundwater as a water supply (which reduces the amount of local groundwater supply).

Future development projects in the Alternative D Planning Area would result in new impervious surfaces and could reduce rainwater infiltration and groundwater recharge in those areas. Infiltration rates vary depending on the overlying soil types. In general, sandy soils have higher infiltration rates and can contribute to significant amounts of ground water recharge; clay soils tend to have lower percolation potential; and impervious surfaces such as pavement significantly reduce infiltration capacity and increase surface water runoff.

The City of Manteca is located in the Eastern San Joaquin River Groundwater Basin. The basin is not adjudicated; however, a basin management plan has been created. The ESJGS-GSP (Eastern San Joaquin Groundwater Authority, 2019) was prepared in November 2019. The purpose of the ESJGS-GSP is “to meet the regulatory requirements set forth in the three-bill legislative package consisting of Assembly Bill (AB) 1739 (Dickinson), Senate Bill (SB) 1168 (Pavley), and SB 1319 (Pavley), collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA.” According to Department of Water Resources (DWR) Bulletin 118 (DWR, 2016), the ESJGB is in a critical condition of overdraft.

Past estimates of safe groundwater yield from the basin have indicated that pumping at or below one acre-foot per acre per year (AF/AC/YR) of City land is sustainable. The City targets this sustainable yield, but it is important to note that the total groundwater pumping occurring within City boundaries includes City-owned municipal wells, City-owned park irrigation wells, and irrigation and domestic wells owned and operated by others. While all of the City’s municipal wells have historically been metered, the irrigation wells were not all metered until 2015 and groundwater pumping data for other wells is incomplete. Therefore, the estimated safe yield for the City’s wells includes some uncertainty. With the introduction of surface water supplies, as discussed above, and conservation measures, withdrawals have declined, stabilizing groundwater levels in the Manteca area (Kennedy/Jenks Consultants, 2016).

The 2014 SGMA enacted groundwater legislation in California that requires the formation of Groundwater Sustainability Agencies who will be responsible for developing Groundwater Sustainability Plans to manage groundwater basins. The City plans to play an active role in local GSA formation (Kennedy/Jenks Consultants, 2016).

As discussed in Section 3.15, Utilities and Service Systems, the City’s 2015 UWMP documents 2015 and projected future water demands and supplies through 2040, as shown in Table 3.15-1 (Kennedy/Jenks Consultants, 2016). Water supplies to meet future demands include surface water purchased from SSJID, City produced groundwater and recycled water. The City’s water supply is projected to increase by about 37 percent from 2015 to 2040, primarily due to implementation of Phase 2 of the SCWSP. Future City groundwater pumping is estimated based on the safe yield for all groundwater pumping within the City’s planning area, less estimated groundwater pumping by other users. Recycled water demand projections assumed decreased use over time of water for crop irrigation, and implementation of a tertiary-treated irrigation supply by 2040.

Subsequent development projects under Alternative, such as residential, commercial, industrial, and roadway projects would result in new impervious surfaces and could reduce rainwater infiltration and groundwater recharge. However, the majority of the developable areas within the city are currently developed with urban uses. The majority of open undeveloped lands within the city are designated for parks and open space uses, while the majority of open undeveloped lands outside the SOI but within the Planning Area are proposed for agricultural uses. Neither the proposed General Plan Land Use Map nor the Alternative D Land Use Map re-designates any areas currently designated for open spaces uses to urban uses. The amount of new pavement and

impervious surfaces, and the extent to which they affect infiltration, depends on the site-specific features and soil types of a given project site. Projects located in urban areas would have less of an impact than projects converting open lands and spaces.

Given that implementation and future buildout of Alternative D would not appreciably add to the volume of impervious surfaces in Manteca, when compared to the overall size of the regional groundwater basin recharge area, and that there are adequate water supplies (including groundwater) to serve the projected buildout demand of Alternative D, this impact would be ***less than significant***, and no additional mitigation is required. Because the Planning Area would increase by 473 acres under Alternative D, and the non-residential and residential development potential would increase under this alternative, the potential for groundwater recharge would be decreased compared to the proposed General Plan. This impact would be worse than the proposed General Plan.

While mitigation is not required for this less than significant impact, Alternative D includes policies and implementation actions that support water conservation and aim to diversify the City's water sources. The General Plan and development codes are consistent with the ESJGS-GSP.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

CF-6.1: *Ensure the water system and supply is adequate to meet the needs of existing and future development and is utilized in a sustainable manner.*

CF-6.3: *Pursue additional water supply agreements to supplement the City's existing system in order to meet projected demand and to reduce the City's reliance on groundwater resources.*

CF-6.6: *Limit development of private water wells to occur only if the City makes a finding that it cannot feasibly provide water service. Such systems shall only be allowed to be used until such time as City water service becomes available.*

CF-6.7: *Ensure that all new development provides for and funds a fair share of the costs for adequate water distribution, including line extensions, easements, and plant expansions.*

CF-6.8: *Continue efforts to reduce potable water use, increase water conservation, and establish water reuse and recycling systems.*

CF-6.9: *Encourage the use of recycled water for industrial uses and landscape irrigation where feasible, within the parameters of State and County Health Codes and standards.*

CF-6.10: *Consider the effect of incremental increases in the demands on groundwater supply and water quality when reviewing development applications.*

Actions

CF-6a: Update the Public Facilities Implementation Plan, regarding water supply and distribution, every five years. The update shall reflect the most recent adopted groundwater studies that establish a safe yield for the groundwater basin and/or establish maximum extraction from the basin. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-6b: Continue to rely principally on groundwater resources in the near term, while participating in the regional improvements to deliver surface water to augment the City's groundwater supply in the mid and long term.

CF-6d: Regularly review and update the City's water conservation measures to be consistent with current best management practices for water conservation, considering measures recommended by the State Department of Water Resources, the California Urban Water Conservation Council, and the San Joaquin County Flood Control and Water Conservation District.

CF-6h: Retain a water conservation ordinance requiring the installation of low-flush toilets, low-flow showerheads, and similar features in all new development.

CF-6j: Regularly monitor water quality in the water system and wells and take necessary measures to prevent contamination and reduce known contaminants to acceptable levels.

IMPACT 3.9-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT ALTER THE EXISTING DRAINAGE PATTERN IN A MANNER WHICH WOULD RESULT IN SUBSTANTIAL EROSION, SILTATION, FLOODING, IMPEDED FLOWS, OR POLLUTED RUNOFF (LESS THAN SIGNIFICANT)

The City is within the jurisdictional boundary of the CVRWQCB. Under the CVRWQCB NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge

Alternative D implementation may impact the Planning Area's storm drainage system. The impacts would be primarily derived from development in what are now underdeveloped and/or underutilized areas. Construction activities are regulated by the NPDES General Construction Storm Water Permit. Compliance with the storm water permit during construction activities requires the preparation of a SWPPP that contains BMPs to control the discharge of pollutants, including sediment, into local surface water drainages.

A gradual increase in impervious cover associated with new development could increase operational storm water runoff. An agreement between the City and SSJID requires that the City monitor stormwater discharges to SSJID facilities to make sure that facilities capacities are not exceeded. The City is also required to control stormwater quality to meet applicable regulations. The detention basins are used to detain stormwater to attenuate peak flows before pumping drainage flows into SSJID facilities. Where required, to meet NPDES permit requirements, stormwater is treated prior to release to natural water bodies within the area. Treatment is

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provided at detention basin sites, or by on-site source control. Most of the City's pump stations pump from detention basins into the SSJID laterals and drains. The City system also includes 10 water level monitoring stations that are used to obtain real-time water level measurements at critical low points in the system, to prevent flooding. The storm drain system is monitored and controlled remotely through SCADA (City of Manteca, 2013).

In addition to complying with the NPDES programs and Municipal Code stormwater requirements, Alternative D contains policies and implementation actions to reduce impacts associated with stormwater and drainage including policies which require new development to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process. Additionally, Alternative D actions require the City to continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.

Individual future projects developed after adoption of Alternative D would create new impervious surfaces. This would result in an incremental reduction in the amount of natural soil surfaces available for infiltration of rainfall and runoff, potentially generating additional runoff during storm events. In addition, the increase in impervious surfaces, along with the increase in surface water runoff, could increase the non-point source discharge of pollutants. Anticipated runoff contaminants include sediment, pesticides, oil and grease, nutrients, metals, bacteria, and trash. Contributions of these contaminants to stormwater and non-stormwater runoff would degrade the quality of receiving waters. During the dry season, vehicles and other urban activities release contaminants onto the impervious surfaces, where they can accumulate until the first storm event. During this initial storm event, or first flush, the concentrated pollutants would be transported via runoff to stormwater drainage systems. Contaminated runoff waters could flow into the stormwater drainage systems that discharge into rivers, agricultural ditches, sloughs, and channels, and ultimately could degrade the water quality of any of these water bodies.

Both the proposed Generals Plan and Alternative D set policies and actions for build-out of the City, but they do not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. As previously discussed in the Regulatory Setting section of this chapter, future project applicants would be required to obtain permits from the Army Corps of Engineers and the Department of Fish and Wildlife if any work is performed within a waterway. Each future development project must also include detailed project specific floodplain and drainage studies that assess the drainage characteristics and flood risks so that an appropriate storm drainage plan can be prepared to control storm water runoff, both during and after construction. The drainage plan will ultimately include project specific best management measures that are designed to allow for natural recharge and infiltration of stormwater. Construction of storm drainage improvements would occur as part of an overall development or infrastructure project, and is considered in the environmental impacts associated with project construction and implementation as addressed throughout this EIR.

The City manages local storm drain facilities and the SSJID is responsible for regional flood control planning. Provision of stormwater detention facilities as needed would reduce runoff rates and peak flows. The City has developed Alternative D to include policies and actions that, when implemented, will reduce flooding from new development, reduce storm water pollution from new development, and protect and enhance natural storm drainage and water quality features, which will in turn minimize water quality impacts.

Through implementation of the Alternative D policies and actions listed below, implementation of the Manteca Municipal Code requirements identified above, and compliance with mandatory Federal and State regulations would ensure that impacts related to increased flooding or water quality impacts associated with increased runoff would be **less than significant**. Because the Planning Area would increase by 473 acres under Alternative D, and the non-residential and residential development potential would increase under this alternative, the potential to alter the existing drainage pattern in a manner which would result in substantial erosion, siltation, flooding, impeded flows, or polluted runoff compared to the proposed General Plan would increase. This impact would be worse than the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

CF-8.1: Maintain and improve Manteca's storm drainage facilities.

CF-8.2: Require all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants shall mitigate any drainage impacts as necessary and shall demonstrate that the project will not result in any increase in off-site runoff during rain and flood events.

CF-8.3: Continue to allow dual-use detention basins for parks, ball fields, and other uses where appropriate.

CF-8.4: Incorporate recreational trails and parkway vegetation design where open stormwater facilities are appropriate and ensure that vegetation does not reduce channel capacity.

CF-8.5: Maintain drainage channels in a naturalized condition where appropriate, incorporating recreational trails, parkway vegetation, and other amenities and ensuring that vegetation does not reduce channel capacity, and consistent with the Resource Conservation Element.

CF-8.6: Continue to work cooperatively with outside agencies such as the San Joaquin County Flood Control and Water Conservation District regarding storm drainage issues.

CF-8.7: Ensure and prioritize adequate drainage facilities low income, disadvantaged, and older neighborhoods and senior communities.

Actions

5.0 ALTERNATIVES

CF-8a: Update the Storm Drainage Master Plan and Public Facilities Implementation Plan every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-8b: Continue to complete gaps in the drainage system in areas of existing and future development.

CF-8c: Identify which storm water and drainage facilities are in need of repair and address these needs through the City's Capital Improvement Program.

CF-8d: Continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.

IMPACT 3.9-4: ALTERNATIVE D IMPLEMENTATION WOULD NOT RELEASE POLLUTANTS DUE TO PROJECT INUNDATION BY FLOOD HAZARD, TSUNAMI, OR SEICHE. (LESS THAN SIGNIFICANT)

Flood

Because Alternative D is located in the same area as the proposed General Plan Planning Area, the same hydrologic conditions exist. The FEMA FIRM for the Alternative D Planning Area is shown on Figure 5.0-15. The Planning Area is subject to flooding problems along the natural creeks and drainages that traverse the area. The primary flood hazard is the San Joaquin River (four miles outside the Study Area) and its tributaries, notably Walthall Slough (contiguous with the southwestern Study Area boundary). A levee running from Williamson Road east to Airport Way provides flood protection for the land north and east of Walthall Slough. This levee is under the jurisdiction of Reclamation District No. 17. The 100-year flood plain is largely confined to the southwestern portion of the City limits and overall Planning Area. Similarly, the 500-year flood plain is located in the southwestern and western portions of the City limits and overall Planning Area.

The 200-year floodplain for the Alternative D Planning Area, as mapped by the City of Manteca and San Joaquin County, is shown on Figure 5.0-16. As shown in the figure, the 200-year floodplain is located in the western portion of the City limits and overall Planning Area. Existing uses within the 200-year floodplain include mainly agricultural and rural-residential uses. Some more recently developed homes located south of State Route 120 are also located within the 200-year floodplain.

Both the General Plan and Alternative D would allow development and improvement projects that would involve some land clearing, grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. As required by the CWA, each subsequent development project or improvement project will require an approved SWPPP that includes best management practices for grading and preservation of topsoil. SWPPPs are designed to control storm water quality degradation to the extent practicable using best management practices during and after construction.

The City of Manteca regulates storm water discharge in accordance with the NPDES permit through Chapter 13.28 of the Manteca Municipal Code, Stormwater Quality Management Discharges. In addition to complying with the NPDES programs and Municipal Code requirements, the General Plan contains policies to reduce impacts associated with stormwater and drainage including policies to maintain sufficient levels of storm drainage service, maintain drainage channels in a naturalized condition where appropriate, and other best practices in order to protect the community from flood hazards and minimize the discharge of materials into the storm drain system that are toxic.

Additionally, Section 17.30.040, 200-Year Floodplain (F-200) Overlay Zone, of the City's Municipal Code requires certain findings prior to approving certain projects within a 200-year floodplain. The review authority shall not approve the execution of a development agreement, a tentative map, or a parcel map for which a tentative map is not required, or a discretionary permit or other discretionary entitlement that would result in the construction of a new building, or construction that would result in an increase in allowed occupancy for an existing building, or issuance of a ministerial permit that would result in the construction of a new residence for property that is located within the F-200 Zone unless the review authority finds, based on substantial evidence in the record, one of the following:

1. The facilities of the State Plan of Flood Control or other flood management facilities protect the property to the urban level of flood protection in urban and urbanizing areas;
2. The City has imposed conditions on a development agreement, map, permit, or entitlement that will protect the property to the urban level of flood protection in urban and urbanizing areas;
3. The local flood management agency has made adequate progress (as defined in California Government Code Section 65007) on the construction of a flood protection system that will result in flood protection equal to or greater than the urban level of flood protection in urban or urbanizing areas; or
4. The property is located in an area of potential flooding of three feet or less from a storm event that has a one in two hundred chance of occurring in any given year, from sources other than local drainage, in urban and urbanizing areas.

Further, the City's 2013 PFIP Update notes several stormwater control improvements aimed to protect the City from flooding during storm events. The 2013 Storm Drain Master Plan evaluates drainage from the General Plan lands within the City's Primary Urban Service Area through build out. As funds are available, the City will construct water level monitoring facilities in the various PFIP zones and in the French Camp Outlet Canal to monitor water elevations in real-time to prevent flooding caused by additional drainage flows. Each zone's proportionate share of the water level monitoring stations is included the various PFIP zone fees.

Lastly, Alternative D includes policies and actions in order to reduce impacts associated with flooding. For example, Policy S-3.3 requires evaluation of potential flood hazards prior to approval of development projects to determine whether the proposed development is reasonably safe from flooding. Action S-3e requires applications for development in areas subject to 200-year

flooding to indicate the depth of predicted 200-year flooding on the basis of official maps approved by the City or Floodplain Administrator. The implementation of Alternative D would result in a ***less than significant*** impact relative to this topic, similar to the proposed General Plan.

Tsunami and Seiches

Tsunamis and seiches are standing waves that occur in the ocean or relatively large, enclosed bodies of water that can follow seismic, landslide, and other events from local sources (California, Oregon, Washington coast) or distant sources (Pacific Rim, South American Coast, Alaska/Canadian coast).

Manteca is located approximately 67 miles from the Pacific Ocean at an elevation of approximately 20 feet above mean sea level. Based on tsunami inundation maps prepared by the Department of Conservation, California Emergency Management Agency, and California Geological Survey, the City is not identified as being within a tsunami inundation or run-up zone.

Seiches are typically caused when strong winds and rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the wind stops, the water rebounds to the other side of the enclosed area. The water then continues to oscillate back and forth for hours or even days. In a similar fashion, earthquakes, tsunamis, or severe storm fronts may also cause seiches along ocean shelves and ocean harbors, or other bodies large of water. Any body of water may experience limited oscillation during storm events or following seismic events, however oscillation in small bodies of water is generally limited. In smaller water bodies seiches may have the potential to damage or overtop dams. Generally, in lakes the threat of large-scale damage from seiches comes from downstream flooding that would be caused by large volumes of water overtopping a dam or reservoir.

The Alternative D Planning Area has the potential to be inundated by four dams: Tulloch Dam, San Luis Dam, New Exchequer Dam (Lake McClure), and New Melones Dam. The dam inundation area for each dam is shown in Figure 5.0-17. As such, the City is at significant risk from a dam failure. Dam failure is generally a result of structural instability caused by improper design or construction, instability resulting from seismic shaking, or overtopping and erosion of the dam. As discussed previously, larger dams that are higher than 25 feet or with storage capacities over 50 acre-feet of water are regulated by the California Dam Safety Act, which is implemented by the California Department of Water Resources, DSD. The DSD is responsible for inspecting and monitoring these dams. The Act also requires that dam owners submit to the California Office of Emergency Services inundation maps for dams that would cause significant loss of life or personal injury as a result of dam failure. The County Office of Emergency Services is responsible for developing and implementing a Dam Failure Plan that designates evacuation plans, the direction of floodwaters, and provides emergency information.

Regular inspection by DSD and maintenance by the dam owners ensure that the dams are kept in safe operating condition. As such, failure of these dams is considered to have an extremely low probability of occurring and is not considered to be a reasonably foreseeable event.

In addition, man-made lakes within the Planning Area are shallow with limited surface areas and would not generate devastating seiches. The City of Manteca is not within a tsunami hazard area and would not be subject to substantial impacts from seiche events. This is a **less than significant** impact and no mitigation is required, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

S-1.1: Maintain and periodically update the City's Emergency Plan.

S-1.2: Ensure the availability and functionality of critical facilities during flooding events.

S-1.3: Locate new critical City facilities, and promote the location of non-City critical facilities, including hospitals, emergency shelters, emergency response centers, and emergency communications facilities, outside of flood hazard zones and geologic hazard areas where feasible. Critical facilities that are, or must be, located within flood hazard zones or areas with geologic hazards should incorporate feasible site design or building construction features to mitigate potential risks, including those associated with geologic, seismic, and flood events, to ensure accessibility, operation, and structural integrity, during an emergency and to minimize damage to the facility.

S-1.4: Encourage community awareness of seismic, flooding, and other disaster safety issues, including building safety, emergency response plans, and understanding steps to take for safety during and after a disaster, including identified evacuation routes.

S-1.5: Continue to cooperate with San Joaquin County and other public agencies in implementing the Countywide Emergency Preparedness Plan and Local Hazard Mitigation Plan.

S-1.6: Provide community resources, including information and education related to disaster, climate adaptation, and evacuation planning and resources, to address disasters, hazardous events, and climate resiliency planning

S-1.7: Increase energy reliability and prepare for power outages, including planning for public safety power shut offs and increasing backup power options.

S-3.3: Require evaluation of potential flood hazards prior to approval of development projects to determine whether the proposed development is reasonably safe from flooding and consistent with California Department of Water Resources Urban Level of Flood Protection Criteria (ULOP). The City shall not approve the execution of a development agreement, a tentative map, or a parcel map for which a tentative map is not required, or a discretionary permit or other discretionary entitlement that would result in the construction of a new building, or construction that would result in an increase in allowed occupancy for an existing building, or issuance of a ministerial permit that would result in the construction of a new residence for property that is located within a 200-year flood hazard zone, unless the adequacy of flood protection as described in Government Code §65865.5(a), 65962(a), or 66474.5(a), has been demonstrated.

5.0 ALTERNATIVES

CF-8.1: Maintain and improve Manteca's storm drainage facilities.

CF-8.2: Require all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants shall mitigate any drainage impacts as necessary and shall demonstrate that the project will not result in any increase in off-site runoff during rain and flood events.

CF-8.3: Continue to allow dual-use detention basins for parks, ball fields, and other uses where appropriate.

CF-8.4: Incorporate recreational trails and parkway vegetation design where open stormwater facilities are appropriate and ensure that vegetation does not reduce channel capacity.

CF-8.5: Maintain drainage channels in a naturalized condition where appropriate, incorporating recreational trails, parkway vegetation, and other amenities and ensuring that vegetation does not reduce channel capacity, and consistent with the Resource Conservation Element.

CF-8.6: Continue to work cooperatively with outside agencies such as the San Joaquin County Flood Control and Water Conservation District regarding storm drainage issues.

Actions

S-1e: Periodically coordinate with local flood protection agencies, including the reclamation districts, to discuss the status of flood protection facilities and improvements, strategize future improvements, consider potential climate change effects, financing for improvements, emergency response plans, and worker training for emergency response situations.

S-1f: Review and maintain critical City facilities to ensure the accessibility and structural and operational integrity of essential facilities during an emergency.

S-3e: Require applications for development in areas subject to 200-year flooding to indicate the depth of predicted 200-year flooding on the basis of official maps approved by the City of Manteca or Floodplain Administrator.

S-3f: Maintain an official 200-year Floodplain Map, including predicted flood depths, for reference when making land use determinations.

S-3g: Amend Chapter 8.30 (Floodplain Management) of the Municipal Code to reflect flood protection requirements specified in the Safety Element as well as any relevant updates to Federal or State requirements.

S-3h: Consider potential effects of climate change in planning, design, and maintenance of levee improvements and other flood control facilities.

CF-8a: Update the Storm Drainage Master Plan and Public Facilities Implementation Plan every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-8b: Continue to complete gaps in the drainage system in areas of existing and future development.

CF-8c: Identify which storm water and drainage facilities are in need of repair and address these needs through the City's Capital Improvement Program.

CF-8d: Continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.

Land Use, Population and Housing

IMPACT 3.10-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT PHYSICALLY DIVIDE AN ESTABLISHED COMMUNITY (LESS THAN SIGNIFICANT)

Similar to the proposed Project, Alternative D establishes the City's vision for future growth and development. Goal LU-1 of the General Plan aims to "maintain a land use plan that provides a mix and distribution of uses that meet the identified needs of the community." The land uses allowed under the Alternative D (Figure 5.0-4) provide opportunities for cohesive new growth at in-fill locations within existing urbanized areas of the city, as well as new growth adjacent to existing urbanized areas, but would not create physical division within the community. New development and redevelopment projects would be designed to complement the character of the existing community and neighborhoods and provide connectivity between existing development and new development.

The Alternative D Land Use Map designates sites for a range of urban and rural developed uses as well as open space. Alternative D does not include any new areas designated for urbanization or new roadways, infrastructure, or other features that would divide existing communities. Alternative D would have a **less than significant** impact associated with the physical division of an established community, similar to the proposed General Plan. The policies and actions listed below would ensure that future development is compatible with adjacent communities and land issues.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

LU-1.1: Maintain an adequate supply of land to support projected housing, employment, service, retail, educational, and institutional needs for the community.

LU-1.2: Promote land use compatibility through use restrictions, development standards, environmental review, and design considerations.

5.0 ALTERNATIVES

LU-2.3: To maintain balanced growth and to manage the City's investment in infrastructure, facilities, and services for growth areas, encourage infill development, redevelopment, and rehabilitation projects within the City, prioritizing investments in underserved neighborhoods, and growth that is contiguous with existing development and/or the boundary of the City.

LU-2.4: Continue to encourage the use of specific and master plans, as needed, to ensure orderly, well-planned growth.

LU-2.5: Lands within the SOI that are not designated with the Urban Reserve Overlay are intended to serve as the Primary Urban Service Area and be planned for development during the General Plan horizon (2040). Lands within the SOI that are designated with the Urban Reserve Overlay as well as lands within the Planning Area that are outside of the SOI are anticipated to accommodate the City's long-term growth and are intended to serve as the Secondary Urban Service Area.

LU-2.6: Evaluate applications for annexations based upon the following criteria:

- The annexation shall mitigate its impacts through consistency with the General Plan goals and policies and shall provide a positive benefit to Manteca.*
- The annexation area is contiguous with city boundaries and provides for logical expansion and development.*
- The annexation area creates clear and reasonable boundaries for the City and service providers.*
- The annexation area will be adequately served by municipal services.*
- The annexation area will be adequately served by schools.*
- The annexation, when reviewed cumulatively with other annexations, provides a long-term fiscal balance for the City and its residents.*
- The annexation is consistent with State law and San Joaquin County Local Agency Formation Commission standards.*
- The annexation is consistent with the General Plan.*
- The annexation contributes its fair-share to applicable infrastructure and public services needs, including facilities identified in the Regional Transportation Plan, Public Facilities Implementation Plan, and Capital Improvement Program.*
- The effect of the proposal on maintaining the physical and economic integrity of agricultural lands and achievement of Resource Conservation and Community Design Elements goals.*
- The extent to which the proposal will assist the City in achieving the adopted fair share of the Regional Housing Needs Assessment as determined by the San Joaquin Council of Governments.*
- The extent to which the proposal will promote environmental justice. As used in this policy, "environmental justice" means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services.*
- The extent in which the proposal facilitates achievement of the City's jobs/housing balance goal of a 1:1 ratio.*

Actions

LU-1a: *As part of the annual report on the implementation of the General Plan to the Planning Commission and City Council, provide an evaluation of the year's development trends, current land supply, and the ability of infrastructure and public services to meet future needs.*

LU-1b: *Regularly review and revise, as necessary, the Zoning Ordinance to accomplish the following purposes:*

- *Ensure consistency with the General Plan in terms of zoning districts and development standards;*
- *Provide for a Downtown zone that permits the vibrant mixing of residential, commercial, office, business-professional, and institutional uses within the Central Business District;*
- *Ensure adequate buffers and transitions are required between intensive uses, such as industrial and agricultural industrial, and sensitive receptors, including residential uses and schools; and*
- *Provide for an Agricultural Industrial zone that accommodates the processing of crops and livestock.*
- *Ensure that land use requirements meet actual demand and community needs over time as technology, social expectations, and business practices change.*

LU-2a: *Monitor the issuance of building permits and development entitlement in order to determine and forecast the rate of future development.*

LU-2b: *Educate the community regarding the benefits of infill development.*

LU-2d: *As part of the review of any General Plan amendment to modify the land use designation or expand the City's boundaries or sphere of influence, the City shall complete or require to be completed the following studies/plans that identify the impacts of the proposed change:*

- a. *Recreational needs assessment and consistency with the Open Space and Conservation Element and Parks and Recreation Master Plan.*
- b. *Economic Development Studies and consistency with Economic Development and Fiscal Element goals and policies.*
- c. *Public Facilities and Services Capacity Study consistent with the Public Facilities and Services Element.*
- d. *Transportation System Capacity Study, including Long Range Transit Plan consistent with the Circulation Element.*

The studies shall define overall service capacities and identify additional performance standards that will need to be met to ensure the achievement of the goals and policies of the General Plan.

5.0 ALTERNATIVES

IMPACT 3.10-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT CAUSE A SIGNIFICANT ENVIRONMENTAL IMPACT DUE TO A CONFLICT WITH ANY LAND USE PLAN, POLICY, OR REGULATION ADOPTED FOR THE PURPOSE OF AVOIDING OR MITIGATING AN ENVIRONMENTAL EFFECT (LESS THAN SIGNIFICANT)

State Plans

Alternative D was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection. The State would continue to have authority over any State-owned lands in the vicinity of the city and Alternative D would not conflict with continued application of State land use plans, policies, and regulations adopted to avoid or mitigate environmental effects.

The Delta Plan contains a set of regulatory policies with which State and local agencies are required to comply with. The Delta Reform Act specifically established a certification process for compliance with the Delta Plan. This means that State and local agencies that propose to carry out, approve, or fund a qualifying action in whole or in part in the Delta, called a “covered action,” must certify that this action is consistent with the Delta Plan and must file a certificate of consistency with the Council that includes detailed findings. Areas Subject to the Delta Plan are included within the Delta’s Primary and Secondary zones. The southwest corner of the General Plan Study Area and Alternative D Planning Area is within the “Secondary Zone.”

Both the General Plan and Alternative D were prepared to include numerous policies and actions intended to ensure construction and maintenance activities associated with future development projects do not conflict with the Delta Plan. For example, General Plan Action RC-12a requires City staff to review all projects affecting areas within the Delta Secondary Zone to ensure they are consistent with the criteria and policies set forth by the Delta Stewardship Council’s “Delta Plan”. Additionally, General Plan Action RC-12b requires City staff to provide opportunities for review of and comment by the Reclamation Districts, the Delta Stewardship Council, Delta Protection Commission, and SWRCB during project review, as applicable. Further, General Plan Action RC-12d requires City staff to review and regulate new development to ensure consistency with Federal and State flood and floodway requirements, including Bay Delta Conservation Plan and Delta Plan policies. Overall, consistency with the policies and actions described above and listed below would ensure future development projects under Alternative D would not conflict with the Delta Plan.

As previously mentioned, the northernmost portion of the Planning Area is located within the airport influence area for the Stockton Metropolitan Airport identified in the Stockton Metropolitan ALUCP. Construction and maintenance activities associated with future development projects under Alternative D could result in conflicts with the adopted ALUCP for the Stockton Metropolitan Airport. For this reason, the City of Manteca has prepared Alternative D to include numerous policies and actions intended to ensure consistency. Policy LU-2.10 states that the City will ensure that development within the Stockton Metropolitan Airport Influence Area is consistent with the compatible uses identified in the Project Review Guidelines for the Airport Land Use Commission. Lands within the Planning Area include lands within Zone 7 (traffic

pattern zone) and Zone 8 (airport influence area). Additionally, Action LU-2i states that the City will refer all applications for development within the Stockton Metro Airport Area of Influence to the ALUC and the Stockton Metro Airport for comment to ensure that all future plans have limited impacts to the community of Manteca. Consistency with the policies and actions described above would ensure future development projects under Alternative D would not conflict with an adopted ALUCP.

City Plans

As set forth by State law, the General Plan serves as the primary planning document for the City and subordinate documents and plans would be updated to be consistent with the General Plan. Similar to the existing General Plan, both the proposed General Plan and Alternative D focus on a balanced land use pattern, creating a community where new development blends with existing neighborhoods, and promoting the City as a desirable place to live and work. Alternative D carries forward and enhances policies and measures from the City's existing General Plan that were intended for environmental protection and would not remove or conflict with City plans, policies, or regulations adopted for environmental protection. Alternative D and the proposed General Plan would require modifications to the City's Zoning Ordinance to provide consistency between the General Plan and zoning; however, these modifications will not remove or adversely modify portions of the Manteca Municipal Code that were adopted to mitigate an environmental effect.

Alternative D includes modifications to the Land Use Map. The Alternative D Land Use Map is depicted in Figure 5.0-4. The revisions to the Land Use Map are consistent with the City's overall objectives provided in Chapter 2.0, Project Description. While Alternative D has been developed to be largely consistent with adopted plans and regulations, the Alternative D Land Use Map designates lands for development that are designated as open space, agricultural, or urban reserve by the current General Plan or identifies lands for intensification of land use (development at higher densities and intensities) than the current General Plan. In some cases, the redesignation reflects existing development on parcels and would not provide for additional density. However, there would be parcels currently designated as open space and agricultural use that would be allowed to develop with urban uses under Alternative D. Environmental impacts, including aesthetics, air quality, biological resources, noise, transportation and traffic, and utilities, associated with potential development under Alternative D are discussed throughout this chapter.

Summary

Subsequent development and infrastructure projects would be required to be consistent with all applicable policies, standards, and regulations, including those land use plans, policies, and regulations adopted to mitigate environmental effects by the City as well as those adopted by agencies with jurisdiction over components of future development projects. Any potential environmental impact associated with conflicts with land use requirements would be **less than significant**, similar to the proposed General Plan. The policies listed below would ensure that the General Plan does not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

LU-1.2: *Promote land use compatibility through use restrictions, development standards, environmental review, and design considerations.*

LU-1.3: *Ensure consistency and compatibility between the Land Use Map and implementing plans, ordinances, and regulations.*

LU-1.4: *Assign the land use designations throughout the City and to parcels within the Planning Area, as included in this element and shown in the Land Use Map (Figure LU-2).*

LU-2.1: *Continue to maintain and implement the City's Growth Management Program, as set forth in the Growth Management Element.*

LU-2.3: *To maintain balanced growth and to manage the City's investment in infrastructure, facilities, and services for growth areas, encourage infill development, redevelopment, and rehabilitation projects within the City, prioritizing investments in underserved neighborhoods, and growth that is contiguous with existing development and/or the boundary of the City.*

LU-2.4: *Continue to encourage the use of specific and master plans, as needed, to ensure orderly, well-planned growth.*

LU-2.6: *Evaluate applications for annexations based upon the following criteria:*

- *The annexation shall mitigate its impacts through consistency with the General Plan goals and polices and shall provide a positive benefit to Manteca.*
- *The annexation area is contiguous with city boundaries and provides for logical expansion and development.*
- *The annexation area creates clear and reasonable boundaries for the City and service providers.*
- *The annexation area will be adequately served by municipal services.*
- *The annexation area will be adequately served by schools.*
- *The annexation, when reviewed cumulatively with other annexations, provides a long-term fiscal balance for the City and its residents.*
- *The annexation is consistent with State law and San Joaquin County Local Agency Formation Commission standards.*
- *The annexation is consistent with the General Plan.*
- *The annexation contributes its fair-share to applicable infrastructure and public services needs, including facilities identified in the Regional Transportation Plan, Public Facilities Implementation Plan, and Capital Improvement Program.*
- *The effect of the proposal on maintaining the physical and economic integrity of agricultural lands and achievement of Resource Conservation and Community Design Elements goals.*

- *The extent to which the proposal will assist the City in achieving the adopted fair share of the Regional Housing Needs Assessment as determined by the San Joaquin Council of Governments.*
- *The extent to which the proposal will promote environmental justice. As used in this policy, “environmental justice” means the fair treatment of people of all races, cultures, and incomes with respect to the location of public facilities and the provision of public services.*
- *The extent in which the proposal facilitates achievement of the City’s jobs/housing balance goal of a 1:1 ratio.*

LU-2.7: Review public and private development proposals and land use changes within the City’s Sphere of Influence (SOI) and Planning Area for consistency within the General Plan.

LU-2.10: Ensure that development within the Stockton Metropolitan Airport Influence Area (Figure LU-3) is consistent with the compatible uses identified in the Project Review Guidelines for the Airport Land Use Commission. Lands within the Planning Area include lands within Zone 7 (traffic pattern zone) and Zone 8 (airport influence area).

Policies

RC-12.1: Support the long-term viability and success of the natural Delta ecosystems and the continuation of Delta heritage.

RC-12.2: Support efforts to ensure the protection, viability, and restoration of the Delta ecosystem in perpetuity, including implementing local conservation efforts that improve adequate water supply and quality.

RC-12.3: Support funding mechanisms that provide for the longer-term improvement and maintenance of Delta levees, and coordinate Delta emergency preparedness, response, and recovery with local agencies.

RC-12.4: Promote protection of areas for habitat restoration, including remnants of riparian and aquatic habitat, particularly in the Delta.

RC-12.5: Encourage compatibility between agricultural practices and wildlife habitat.

RC-12.6: Preserve and protect the water availability and quality of the Delta for designated beneficial uses and habitat protection.

RC-12.7: Encourage and promote the expansion of floodplains and riparian habitats in levee projects.

RC-12.8: Recognize that climate change impacts may influence future guidance, and best available data, and continue to ensure that up-to-date information is consulted when reviewing projects for potential impacts to the Delta.

5.0 ALTERNATIVES

Actions

LU-1b: Regularly review and revise, as necessary, the Zoning Ordinance to accomplish the following purposes:

- *Ensure consistency with the General Plan in terms of zoning districts and development standards;*
- *Provide for a Downtown zone that permits the vibrant mixing of residential, commercial, office, business-professional, and institutional uses within the Central Business District;*
- *Ensure adequate buffers and transitions are required between intensive uses, such as industrial and agricultural industrial, and sensitive receptors, including residential uses and schools; and*
- *Provide for an Agricultural Industrial zone that accommodates the processing of crops and livestock.*
- *Ensure that land use requirements meet actual demand and community needs over time as technology, social expectations, and business practices change.*

LU-1c: *Conduct a General Plan review in conjunction with adoption of policy and regulatory documents to ensure consistency with the Land Use Map.*

LU-2c: *Maintain a computerized land use database system that includes current parcel-specific information regarding General Plan, Zoning, parcel size, pending and approved development, and other relevant factors.*

LU-2f: *Formally request that the County provide the City with notice of development applications and related actions within and adjacent to the Planning Area and provide the City with the opportunity to comment on land use changes and development proposals under review. The City's review of projects within the referral area shall emphasize the importance of:*

- *Consistency with the Land Use Map;*
- *The protection of agricultural lands, greenways, and open space;*
- *The protection of biological resources, including riparian habitat and corridors;*
- *The protection of groundwater recharge areas and watersheds;*
- *Reducing sprawl; and*
- *Ensuring quality development that meets the City's standards and is consistent with the City's character and values.*

LU-2g: *Review and comment on development proposals in adjacent communities to minimize potential environmental and economic impacts to Manteca.*

LU-2i: *Refer all applications for development within the Stockton Metro Airport Area of Influence to the Airport Land Use Commission and the Stockton Metro Airport for comment.*

RC-12a: *Review all projects affecting areas within the Delta Secondary Zone to ensure they are consistent with the criteria and policies set forth by the Delta Stewardship Council's "Delta Plan".*

RC-12b: As applicable, provide opportunities for review of and comment by the Reclamation Districts, the Delta Stewardship Council, Delta Protection Commission, and SWRCB during project review.

RC-12c: Review all projects located within or adjacent to priority habitat restoration areas, and consult the California Department of Fish and Wildlife to ensure that any impacts do not have a significant effect on the opportunity to restore habitat as described in the Delta Plan.

RC-12d: Review and regulate new development to ensure consistency with Federal and State flood and floodway requirements, including Bay Delta Conservation Plan and Delta Plan policies as applicable.

IMPACT 3.10-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT INDUCE SUBSTANTIAL UNPLANNED 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) (LESS THAN SIGNIFICANT)

Both the proposed General Plan and Alternative D are a long-range planning documents that establish the City's vision for growth patterns, including areas for development and lands for open space and conservation. Both the proposed General Plan and Alternative D provide the framework for the City's plan for growth and development, including new businesses, expansion of existing businesses, and new residential uses. Infrastructure and services would need to be extended to accommodate future growth under both the proposed General Plan and Alternative D.

At full buildout, the proposed General Plan could accommodate approximately a total of up to 38,103 housing units and 28,713,612 square feet of non-residential building square footage within the Planning Area. As shown in Table 2.0-3 in Chapter 2.0, compared to the existing General Plan, the proposed General Plan would result in approximately 11,951 new housing units. This new growth may increase the city's population by approximately 38,004 residents and 3,469 employees compared to the existing General Plan for a total of approximately 121,168 residents and 27,448 jobs. Depending on growth rates, the actual growth during the life of the General Plan could be lower or higher, but would not exceed the theoretical buildout described in Chapter 2.0.

As shown in Table 5.0-5, Alternative D would result in approximately 36,650 housing units and 35,458,437 square feet of non-residential building square footage at buildout. This is approximately 1,453 fewer housing units, which reflects an increase of 5,673 single family units and a decrease of 7,126 multi-family units within the Planning Area when compared to the proposed General Plan Land Use Map. Employment opportunities would also increase under this alternative, with approximately 10,521 fewer jobs created within the Planning Area when compared to the proposed General Plan. Under full buildout conditions, this alternative would result in a total population within the Planning Area of approximately 206,381, which is slightly less than the total population projection of 211,003 under the proposed General Plan.

Given the historical and current population, housing, and employment trends, growth in the city, as well as the entire state, is inevitable. The primary factors that account for population growth

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are natural increase and net migration. The average annual birth rate for California is expected to be 20 births per 1,000 population. Additionally, California is expected to attract more than one third of the country's immigrants. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and transportation. Alternative D would accommodate the City's fair share of statewide housing needs, which are allocated by the SJCOG, based on regional numbers provided by the California Department of Housing and Community Development on a regular basis (every eight years).

Alternative D includes policies and actions that mitigate environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality effects. With implementation of the policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the Alternative D, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds, beyond those disclosed and analyzed throughout this EIR. Therefore, population and housing growth associated with Alternative D would result a **less than significant** impact, as there are no additional potential environmental impacts, beyond those analyzed and disclosed in this EIR, that would result from growth accommodated by the proposed project. No additional mitigation is required. Overall, this alternative would have similar impacts to the proposed General Plan.

IMPACT 3.10-4: ALTERNATIVE D IMPLEMENTATION WOULD NOT DISPLACE SUBSTANTIAL NUMBERS OF EXISTING PEOPLE OR HOUSING, NECESSITATING THE CONSTRUCTION OF REPLACEMENT HOUSING ELSEWHERE (LESS THAN SIGNIFICANT)

The majority of developed land in the Alternative D Planning Area is comprised of residential uses, which are not anticipated to undergo significant land use changes under Alternative D. Alternative D focuses on providing the framework for logical, orderly growth from the City's compact, historic center extending to well-delineated residential neighborhoods, employment centers, and community amenities. The Alternative D Land Use Map includes an expansion to the City's Planning Area in the northwest, increasing the total size of the Planning Area. When compared to the proposed General Plan, Alternative D would result in approximately 1,453 fewer housing units, which reflects an increase of 5,673 single family units and a decrease of 7,126 multi-family units within the Planning Area when compared to the proposed General Plan Land Use Map. Similar to the proposed General Plan, Alternative D would also increase the housing stock when compared to the existing General Plan.

The increase in dwelling units allows for the diversification of the City's housing supply to meet the needs of the community at various socioeconomic levels. While Alternative D may result in development that would remove residences, development allowed under Alternative D identifies lands for a variety of housing densities and types would result in an increase in the total number of residences and provide housing opportunities for persons that may be displaced as a result of development.

Therefore, impacts of Alternative D on the displacement of people or housing are considered **less than significant** and no mitigation is required. The policies listed below would further ensure that

a range of housing types are provided in the City, and that housing conditions are evaluated as the housing supply ages.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

EF-5.1: Plan for a broad range of housing types and densities to accommodate all income levels and job classifications.

EF-5.2: Plan for a balanced community where the Manteca workforce will be able to afford housing within the city of Manteca.

Actions

EF-5a: Use the Policies and Implementation Measures outlined in the Housing Element to assure provision of housing affordable to the existing and future workforce.

EF-5b: Use appropriate land use, zoning, and permit streamlining strategies, and financial incentives to provide for and promote housing types that are compatible with wage structures associated with existing and forecast employment.

EF-5c: Encourage specific plans and large planned developments throughout the City to include a mix of housing types and density ranges (consistent with the Zoning Ordinance) related to local wage structures to achieve a jobs/housing balance.

EF-5d: Encourage creative approaches to encourage integration of housing production with commercial development.

Mineral Resources

IMPACT 3.11-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT 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 (LESS THAN SIGNIFICANT)

Because Alternative D is located in the same area as the proposed General Plan Planning Area, the same mineral and geologic conditions exist. Within the Alternative D Planning Area, mineral resources include sand and gravel. The Mineral Resource Zones (MRZs) for the Alternative D Planning Area are shown in Figure 5.0-18.

The western portion of the Planning Area near Oakwood Lake is designated as MRZ-2, which consists of a large PCC-grade sand deposit situated along the San Joaquin River west of Manteca and south of Lathrop near the middle of the valley. The area is classified as an important MRZ for PCC grade aggregate by the DOC. PCC-grade aggregate is valuable in central California where it used for a variety of construction purposes. However, mining operations at the Oakwood Lake Mine have ceased. Oakwood Lake Resort was created from these reclaimed mined lands and the Oakwood Shores residential project was subsequently developed on the site of this former quarry.

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A portion of MRZ-2 (PCC-1) land currently exists on and east of the Oakwood Shores residential project. However, this land is currently designated as LDR and is expected to be developed with residential uses. It is noted that, under Alternative D, the Urban Reserve overlay is applied to the Oakwood Lake area in the southwest portion of the Planning Area outside of the City limits, reducing the potential for growth in this area. Although the Urban Reserve overlay would preserve this area, this area has already been mined and then subsequently developed.

In addition, a large area designated MRZ-3 is located in the southwest portion of the Planning Area within zones designated as LDR and agricultural by the City of Manteca. Another portion of area designated as MRZ-3 currently extends through the southern/central portion of the City in an east/west direction, then extends southeast to undeveloped land primarily designated as LDR. These areas identified as MRZ-3, which consist of areas containing mineral deposits; the significance of which cannot be evaluated. However, the majority of the area designated as MRZ-3 runs through the center of the City of Manteca and is currently developed and is no longer available for mining.

Given that the only known MRZ-2 area in Manteca has already been mined and then subsequently developed, no significant potential for extraction remains from this known MRZ. There are no other known mineral deposits or resources within Manteca that are of significant value to the region or the state. As such, implementation of Alternative D would have a **less than significant** impact on this environmental topic, and no mitigation is required. This impact would be similar to the proposed General Plan.

IMPACT 3.11-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT 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 (LESS THAN SIGNIFICANT)

The current General Plan indicates that sand deposits near the San Joaquin River are considered to be of regional significance. As previously described, Brown Sand and Gravel, Incorporated, has produced processed sand at Oakwood Lake Pit, located within the area designated as resources of regional significance. However, as noted above, these mining operations have ceased, and Oakwood Shores has been developed on the former quarry site. Therefore, the regional resource is no longer available for extraction and the proposed project would not result in loss of availability of a designated locally important mineral resource recovery site. Therefore, this impact is considered **less than significant** and no additional mitigation is necessary. This impact would be similar to the proposed General Plan.

Noise

IMPACT 3.12-1: ALTERNATIVE D IMPLEMENTATION WOULD GENERATE A SUBSTANTIAL TEMPORARY OR PERMANENT INCREASE IN AMBIENT NOISE LEVELS IN THE VICINITY OF THE PROJECT IN EXCESS OF APPLICABLE STANDARDS (SIGNIFICANT AND UNAVOIDABLE)

Traffic Noise

Implementation of the proposed General Plan would result in the introduction of additional development, roadways, and a truck route, as described in Chapter 2.0, that would result in additional traffic and associated traffic noise. Alternative D would result in the introduction of additional development and roadways, but the truck route would be removed.

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop Ldn (24-hour average) noise contours for all highways and major roadways in the study area. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model predicts hourly Leq values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict Ldn values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period. It should be noted that the newer FHWA traffic noise model (TNM 3.0) is required for use on federally funded highway projects. However, the FHWA RD-77-108 model is still widely used in the industry for planning-level projects involving many roadway segments. The model typically results in slight over-predictions in traffic noise levels at typical receptor setback distances and is therefore considered to result in conservative traffic noise level predictions.

Traffic and heavy truck volumes were obtained from the traffic engineer (Fehr & Peers, 2022). Day/night traffic distributions were based upon continuous hourly noise measurement data. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing conditions. Table 5.0-15 shows the Existing (2019) and future Alternative D traffic noise levels and the increase in noise levels associated with traffic on the local roadway network under the Alternative D traffic scenario.

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TABLE 5.0-15: EXISTING (2019) VS ALTERNATIVE D TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	NOISE LEVELS (LDN, dB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING (2019)	ALT. D	CHANGE	EX. GP CRITERIA ¹	SIGNIFICANT UNDER EX. GP?
					PROPOSED GP CRITERIA ²	SIGNIFICANT UNDER ALT. D?
Airport Way	North of Crom Street	63.3	68.4	5.1	+5-10 dBA	Yes
					+3 dBA	Yes
	North of Daisywood Drive	66.6	71.7	5.1	+5-10 dBA	Yes
					+1.5 dBA	Yes
	North of Daniels Street	65.5	69.3	3.8	+5-10 dBA	No
					+1.5 dBA	Yes
	South of Northgate Drive	66.5	72.3	5.8	+5-10 dBA	Yes
					+1.5 dBA	Yes
	South of SR 120	61.8	66.6	4.8	+5-10 dBA	No
					+3 dBA	Yes
Atherton Drive	East of Main Street	56.6	60.6	4.0	>60 dBA	Yes
					+5 dBA	No
	East of Union Road	60.3	65.4	5.1	+5-10 dBA	Yes
					+3 dBA	Yes
Austin Road	South of Moffat Boulevard	65.4	66.2	0.8	+5-10 dBA	No
					+1.5 dBA	No
	South of Yosemite Avenue	66.1	67.2	1.1	+5-10 dBA	No
					+1.5 dBA	No
Cottage Avenue	South of Aldwina Lane	65.4	66.9	1.5	+5-10 dBA	No
					+1.5 dBA	No
Daniels Street	West of Airport Way	63.2	65.7	2.5	+5-10 dBA	No
					+3 dBA	No
French Camp	Rd east of SR	62.8	65.7	2.9	+5-10 dBA	No
					+3 dBA	No
	Rd west of SR	72.4	76.6	4.2	+5-10 dBA	No
					+1.5 dBA	Yes
Lathrop Avenue	West of Airport Way	71.9	77.0	5.1	+5-10 dBA	Yes
					+1.5 dBA	Yes
	West of Madison Grove	68.2	71.3	3.1	+5-10 dBA	No
					+1.5 dBA	Yes
	West of Sherwood Avenue	68.4	71.6	3.2	+5-10 dBA	No
					+1.5 dBA	Yes

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ROADWAY	SEGMENT	NOISE LEVELS (LDN, DB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING (2019)	ALT. D	CHANGE	EX. GP CRITERIA ¹	SIGNIFICANT UNDER EX. GP?
					PROPOSED GP CRITERIA ²	SIGNIFICANT UNDER ALT. D?
Louise Avenue	East of Marguerite Avenue	63.6	67.3	3.7	+5-10 dBA	No
					+3 dBA	Yes
	East of Tulip Place	64.0	67.2	3.2	+5-10 dBA	No
					+3 dBA	Yes
	West of Airport Way	69.9	76.2	6.3	+5-10 dBA	Yes
					+1.5 dBA	Yes
	West of Austin Road	61.2	66.5	5.3	+5-10 dBA	Yes
					+3 dBA	Yes
	West of Cottage Avenue	61.1	64.3	3.2	+5-10 dBA	No
					+3 dBA	Yes
	West of Yvonne Avenue	63.9	66.7	2.8	+5-10 dBA	No
					+3 dBA	No
Lovelace Road	East of Union Rd	N/A	72.5	N/A	N/A	N/A
					N/A	N/A
	East of Airport Way	63.2	74.4	11.2	+5-10 dBA	Yes
					+3 dBA	Yes
	West of SR 99	N/A	72.8	N/A	N/A	N/A
					N/A	N/A
Main Street	(Manteca Rd) north of Sedan Avenue	68.4	71.5	3.1	+5-10 dBA	No
					+1.5 dBA	Yes
	North of Northgate Drive	61.7	63.9	2.2	+5-10 dBA	No
					+3 dBA	No
	North of SR 120 WB ramps	72.4	72.8	0.4	+5-10 dBA	No
					+1.5 dBA	No
	South of Alameda Street	71.3	72.5	1.2	+5-10 dBA	No
					+1.5 dBA	No
	South of Quintal Road	63.0	66.4	3.4	+5-10 dBA	No
					+3 dBA	Yes
Moffat Boulevard	East of Powers Avenue	63.7	65.4	1.7	+5-10 dBA	No
					+3 dBA	No
	North of Woodward Avenue	55.1	57.5	2.4	>60 dBA	No
					+5 dBA	No
Raymus Parkway	East of Austin Road	N/A	66.5	N/A	N/A	N/A
					N/A	N/A
	East of Main Street	N/A	64.9	N/A	N/A	N/A
					N/A	N/A
	East of Union Road	N/A	63.9	N/A	N/A	N/A
					N/A	N/A
	West of Airport Way	N/A	N/A	N/A	N/A	N/A
					N/A	N/A

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ROADWAY	SEGMENT	NOISE LEVELS (LDN, dB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING (2019)	ALT. D	CHANGE	EX. GP CRITERIA ¹	SIGNIFICANT UNDER EX. GP?
					PROPOSED GP CRITERIA ²	SIGNIFICANT UNDER ALT. D?
Roth Road	East of Airport Way	N/A	70.0	N/A	N/A	N/A
					N/A	N/A
	West of Airport Way	66.8	72.4	5.6	+5-10 dBA	Yes
					+1.5 dBA	Yes
Spreckels Avenue	South of Phoenix Drive	61.2	61.7	0.5	+5-10 dBA	No
					+3 dBA	No
SR 120	Eb between McKinley Ave and Airport Way	66.5	70.3	3.8	+5-10 dBA	No
					+1.5 dBA	Yes
	Total between McKinley Ave and Airport Way	69.7	73.4	3.7	+5-10 dBA	No
					+1.5 dBA	Yes
	Wb between McKinley Ave and Airport Way	63.9	67.5	3.6	+5-10 dBA	No
					+3 dBA	Yes
SR 99	NB north of Lovelace Rd	76.4	77.7	1.3	+5-10 dBA	No
					+1.5 dBA	No
	NB north of Yosemite Ave	71.6	73.6	2.0	+5-10 dBA	No
					+1.5 dBA	Yes
	SB north of Lovelace Rd	75.5	76.8	1.3	+5-10 dBA	No
					+1.5 dBA	No
	SB north of Yosemite Ave	74.1	76.0	1.9	+5-10 dBA	No
					+1.5 dBA	Yes
	Total north of Lovelace Rd	79.4	80.7	1.3	+5-10 dBA	No
					+1.5 dBA	No
	Total north of Yosemite Ave	77.0	78.9	1.9	+5-10 dBA	No
					+1.5 dBA	Yes
Union Road	North of Lovelace Rd	63.5	72.4	8.9	+5-10 dBA	Yes
					+3 dBA	Yes
	North of Crom Street	63.3	67.3	4.0	+5-10 dBA	No
					+3 dBA	Yes
	North of Del Webb Boulevard	60.4	65.1	4.7	+5-10 dBA	No
					+3 dBA	Yes
	South of Mission Ridge Drive	66.4	68.3	1.9	+5-10 dBA	No
					+1.5 dBA	Yes
	South of Northgate Drive	64.1	68.0	3.9	+5-10 dBA	No
					+3 dBA	Yes
South of SR 120 EB Ramps	60.3	65.3	5.0	+5-10 dBA	Yes	
				+3 dBA	Yes	
South of Woodward Avenue	63.7	69.8	6.1	+5-10 dBA	Yes	
				+3 dBA	Yes	
Van Ryn	Avenue north of Atherton Drive	64.2	66.4	2.2	+5-10 dBA	No
					+3 dBA	No

ROADWAY	SEGMENT	NOISE LEVELS (LDN, DB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING (2019)	ALT. D	CHANGE	EX. GP CRITERIA ¹	SIGNIFICANT UNDER EX. GP?
					PROPOSED GP CRITERIA ²	SIGNIFICANT UNDER ALT. D?
Woodward Avenue	West of Airport Way	58.2	63.0	4.8	>60 dBA	Yes
					+5 dBA	No
	West of Laurie Avenue	62.8	68.1	5.3	+5-10 dBA	Yes
					+3 dBA	Yes
	West of Moffat Boulevard	66.3	N/A	N/A	N/A	N/A
					N/A	N/A
Yosemite Avenue	East of Cottage Avenue	70.9	71.7	0.8	+5-10 dBA	No
					+1.5 dBA	No
	West of Airport Way	69.7	73.3	3.6	+5-10 dBA	No
					+1.5 dBA	Yes
	West of Almond Avenue	64.6	65.8	1.2	+5-10 dBA	No
					+3 dBA	No
	West of El Rancho Drive	68.1	72.0	3.9	+5-10 dBA	No
					+1.5 dBA	Yes
	West of Pacific Road	54.5	57.9	3.4	>60 dBA	No
					+5 dBA	No
	West of Washington Avenue	65.1	65.8	0.7	+5-10 dBA	No
					+1.5 dBA	No

¹ EXISTING GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS ARE INCREASED BY 10 DB OR MORE. AN INCREASE FROM 5-10 DB MAY BE SUBSTANTIAL. FACTORS TO BE CONSIDERED IN DETERMINING THE SIGNIFICANCE OF INCREASES FROM 5-10 DB INCLUDE:

- THE RESULTING NOISE LEVELS
- THE DURATION AND FREQUENCY OF THE NOISE
- THE NUMBER OF PEOPLE AFFECTED
- THE LAND USE DESIGNATION OF THE AFFECTED RECEPTOR SITES
- PUBLIC REACTIONS/CONTROVERSY AS DEMONSTRATED AT WORKSHOPS/HEARINGS, OR BY CORRESPONDENCE
- PRIOR CEQA DETERMINATIONS BY OTHER AGENCIES SPECIFIC TO THE PROJECT

² PROPOSED GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS ARE HAVE A SUBSTANTIAL INCREASE. GENERALLY, A 3 DB INCREASE IN NOISE LEVELS IS BARELY PERCEPTIBLE, AND A 5 DB INCREASE IN NOISE LEVELS IS CLEARLY PERCEPTIBLE. THEREFORE, INCREASES IN NOISE LEVELS SHALL BE CONSIDERED TO BE SUBSTANTIAL WHEN THE FOLLOWING OCCURS:

WHEN EXISTING NOISE LEVELS ARE LESS THAN 60 DB, A 5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;
 WHEN EXISTING NOISE LEVELS ARE BETWEEN 60 DB AND 65 DB, A 3 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;
 WHEN EXISTING NOISE LEVELS EXCEED 65 DB, A 1.5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL.

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2022.

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TABLE 5.0-16: EXISTING (2019) PLUS APPROVED VS. ALTERNATIVE D TRAFFIC NOISE LEVELS

ROADWAY	SEGMENT	NOISE LEVELS (LDN, dB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING (2019) PLUS APPROVED	ALT. D	CHANGE	EX. GP CRITERIA ¹	SIGNIFICANT UNDER EX. GP?
					PROPOSED GP CRITERIA ²	SIGNIFICANT UNDER ALT. D?
Airport Way	North of Crom Street	67.4	68.4	1.0	+5-10 dBA	No
					+1.5 dBA	No
	North of Daisywood Drive	71.1	71.7	0.6	+5-10 dBA	No
					+1.5 dBA	No
	North of Daniels Street	69.1	69.3	0.2	+5-10 dBA	No
					+1.5 dBA	No
	South of Northgate Drive	70.1	72.3	2.2	+5-10 dBA	No
					+1.5 dBA	Yes
	South of SR 120	65.5	66.6	1.1	+5-10 dBA	No
					+1.5 dBA	No
Atherton Drive	East of Main Street	58.1	60.6	2.5	>60 dBA	No
					+5 dBA	No
	East of Union Road	62.1	65.4	3.3	+5-10 dBA	No
					+3 dBA	Yes
Austin Road	South of Moffat Boulevard	65.0	66.2	1.2	+5-10 dBA	No
					+3 dBA	No
	South of Yosemite Avenue	65.8	67.2	1.4	+5-10 dBA	No
					+1.5 dBA	No
Cottage Avenue	South of Aldwina Lane	65.9	66.9	1.0	+5-10 dBA	No
					+1.5 dBA	No
Daniels Street	West of Airport Way	67.9	65.7	-2.2	+5-10 dBA	No
					+1.5 dBA	No
French Camp	Rd east of SR	63.2	65.7	2.5	+5-10 dBA	No
					+3 dBA	No
	Rd west of SR	73.0	76.6	3.6	+5-10 dBA	No
					+1.5 dBA	Yes
Lathrop Avenue	West of Airport Way	73.4	77.0	3.6	+5-10 dBA	No
					+1.5 dBA	Yes
	West of Madison Grove	69.8	71.3	1.5	+5-10 dBA	No
					+1.5 dBA	Yes
	West of Sherwood Avenue	69.7	71.6	1.9	+5-10 dBA	No
					+1.5 dBA	Yes

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ROADWAY	SEGMENT	NOISE LEVELS (LDN, dB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING (2019) PLUS APPROVED	ALT. D	CHANGE	EX. GP CRITERIA ¹	SIGNIFICANT UNDER EX. GP?
					PROPOSED GP CRITERIA ²	SIGNIFICANT UNDER ALT. D?
Louise Avenue	East of Marguerite Avenue	65.6	67.3	1.7	+5-10 dBA	No
					+1.5 dBA	Yes
	East of Tulip Place	64.2	67.2	3.0	+5-10 dBA	No
					+3 dBA	Yes
	West of Airport Way	71.9	76.2	4.3	+5-10 dBA	No
					+1.5 dBA	Yes
West of Austin Road	61.9	66.5	4.6	+5-10 dBA	No	
				+3 dBA	Yes	
West of Cottage Avenue	61.3	64.3	3.0	+5-10 dBA	No	
				+3 dBA	Yes	
West of Yvonne Avenue	65.7	66.7	1.0	+5-10 dBA	No	
				+1.5 dBA	No	
Lovelace Road	East of Union Rd	N/A	72.5	N/A	N/A	N/A
					N/A	N/A
	East of Airport Way	64.7	74.4	9.7	+5-10 dBA	Yes
					+3 dBA	Yes
West of SR 99	N/A	72.8	N/A	N/A	N/A	
				N/A	N/A	
Main Street	(Manteca Rd) north of Sedan Avenue	68.6	71.5	2.9	+5-10 dBA	No
					+1.5 dBA	Yes
	North of Northgate Drive	63.1	63.9	0.8	+5-10 dBA	No
					+3 dBA	No
	North of SR 120 WB ramps	72.9	72.8	-0.1	+5-10 dBA	No
					+1.5 dBA	No
South of Alameda Street	71.6	72.5	0.9	+5-10 dBA	No	
				+1.5 dBA	No	
South of Quintal Road	64.0	66.4	2.4	+5-10 dBA	No	
				+3 dBA	No	
Moffat Boulevard	East of Powers Avenue	64.2	65.4	1.2	+5-10 dBA	No
					+3 dBA	No
	North of Woodward Avenue	55.8	57.5	1.7	>60 dBA	No
					+5 dBA	No
Raymus Parkway	East of Austin Road	N/A	66.5	N/A	N/A	N/A
					N/A	N/A
	East of Main Street	N/A	64.9	N/A	N/A	N/A
					N/A	N/A
	East of Union Road	N/A	63.9	N/A	N/A	N/A
					N/A	N/A
West of Airport Way	N/A	N/A	N/A	N/A	N/A	
				N/A	N/A	

5.0 ALTERNATIVES

ROADWAY	SEGMENT	NOISE LEVELS (LDN, dB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING (2019) PLUS APPROVED	ALT. D	CHANGE	EX. GP CRITERIA ¹	SIGNIFICANT UNDER EX. GP?
					PROPOSED GP CRITERIA ²	SIGNIFICANT UNDER ALT. D?
Roth Road	East of Airport Way	N/A	70.0	N/A	N/A	N/A
	West of Airport Way	68.1	72.4	4.3	+5-10 dBA	No
					+1.5 dBA	Yes
Spreckels Avenue	South of Phoenix Drive	61.8	61.7	-0.1	+5-10 dBA	No
					+3 dBA	No
SR 120	Eb between McKinley Ave and Airport Way	66.9	70.3	3.4	+5-10 dBA	No
					+1.5 dBA	Yes
	Total between McKinley Ave and Airport Way	70.1	73.4	3.3	+5-10 dBA	No
					+1.5 dBA	Yes
	Wb between McKinley Ave and Airport Way	64.2	67.5	3.3	+5-10 dBA	No
					+3 dBA	Yes
SR 99	Nb north of Lovelace Rd	76.7	77.7	1.0	+5-10 dBA	No
					+1.5 dBA	No
	Nb north of Yosemite Ave	72.0	73.6	1.6	+5-10 dBA	No
					+1.5 dBA	Yes
	Sb north of Lovelace Rd	75.8	76.8	1.0	+5-10 dBA	No
					+1.5 dBA	No
	Sb north of Yosemite Ave	74.5	76.0	1.5	+5-10 dBA	No
					+1.5 dBA	Yes
	Total north of Lovelace Rd	79.7	80.7	1.0	+5-10 dBA	No
					+1.5 dBA	No
	Total north of Yosemite Ave	77.4	78.9	1.5	+5-10 dBA	No
					+1.5 dBA	Yes
Union Road	North of Lovelace Rd	64.0	72.4	8.4	+5-10 dBA	Yes
					+3 dBA	Yes
	North of Crom Street	64.9	67.3	2.4	+5-10 dBA	No
					+3 dBA	No
	North of Del Webb Boulevard	61.5	65.1	3.6	+5-10 dBA	No
					+3 dBA	Yes
	South of Mission Ridge Drive	66.8	68.3	1.5	+5-10 dBA	No
					+1.5 dBA	Yes
	South of Northgate Drive	65.5	68.0	2.5	+5-10 dBA	No
					+1.5 dBA	Yes
South of SR 120 EB Ramps	62.8	65.3	2.5	+5-10 dBA	No	
				+3 dBA	No	
South of Woodward Avenue	64.0	69.8	5.8	+5-10 dBA	Yes	
				+3 dBA	Yes	
Van Ryn	Avenue north of Atherton Drive	65.6	66.4	0.8	+5-10 dBA	No
					+1.5 dBA	No

ROADWAY	SEGMENT	NOISE LEVELS (LDN, dB) AT NEAREST SENSITIVE RECEPTORS				
		EXISTING (2019) PLUS APPROVED	ALT. D	CHANGE	EX. GP CRITERIA ¹	SIGNIFICANT UNDER EX. GP?
					PROPOSED GP CRITERIA ²	SIGNIFICANT UNDER ALT. D?
Woodward Avenue	West of Airport Way	64.6	63.0	-1.6	+5-10 dBA	No
					+3 dBA	No
	West of Laurie Avenue	65.6	68.1	2.5	+5-10 dBA	No
					+1.5 dBA	Yes
	West of Moffat Boulevard	67.6	N/A	N/A	N/A	N/A
					N/A	N/A
Yosemite Avenue	East of Cottage Avenue	71.8	71.7	-0.1	+5-10 dBA	No
					+1.5 dBA	No
	West of Airport Way	71.2	73.3	2.1	+5-10 dBA	No
					+1.5 dBA	Yes
	West of Almond Avenue	66.5	65.8	-0.7	+5-10 dBA	No
					+1.5 dBA	No
	West of El Rancho Drive	68.8	72.0	3.2	+5-10 dBA	No
					+1.5 dBA	Yes
	West of Pacific Road	56.7	57.9	1.2	>60 dBA	No
					+5 dBA	No
	West of Washington Avenue	65.7	65.8	0.1	+5-10 dBA	No
					+1.5 dBA	No

¹ EXISTING GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS ARE INCREASED BY 10 DB OR MORE. AN INCREASE FROM 5-10 DB MAY BE SUBSTANTIAL. FACTORS TO BE CONSIDERED IN DETERMINING THE SIGNIFICANCE OF INCREASES FROM 5-10 DB INCLUDE:

- THE RESULTING NOISE LEVELS
- THE DURATION AND FREQUENCY OF THE NOISE
- THE NUMBER OF PEOPLE AFFECTED
- THE LAND USE DESIGNATION OF THE AFFECTED RECEPTOR SITES
- PUBLIC REACTIONS/CONTROVERSY AS DEMONSTRATED AT WORKSHOPS/HEARINGS, OR BY CORRESPONDENCE
- PRIOR CEQA DETERMINATIONS BY OTHER AGENCIES SPECIFIC TO THE PROJECT

² PROPOSED GP CRITERIA - IN MAKING A DETERMINATION OF IMPACT UNDER THE CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA), A SUBSTANTIAL INCREASE WILL OCCUR IF AMBIENT NOISE LEVELS ARE HAVE A SUBSTANTIAL INCREASE. GENERALLY, A 3 DB INCREASE IN NOISE LEVELS IS BARELY PERCEPTIBLE, AND A 5 DB INCREASE IN NOISE LEVELS IS CLEARLY PERCEPTIBLE. THEREFORE, INCREASES IN NOISE LEVELS SHALL BE CONSIDERED TO BE SUBSTANTIAL WHEN THE FOLLOWING OCCURS:

WHEN EXISTING NOISE LEVELS ARE LESS THAN 60 DB, A 5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;
 WHEN EXISTING NOISE LEVELS ARE BETWEEN 60 DB AND 65 DB, A 3 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL;
 WHEN EXISTING NOISE LEVELS EXCEED 65 DB, A 1.5 DB INCREASE IN NOISE WILL BE CONSIDERED SUBSTANTIAL.

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS AND SAXELBY ACOUSTICS. 2022.

It is noted that many roadways in the City would experience in increase in noise levels due to development of pending projects. Table 5.0-16 shows the Existing (2019) Plus Approved and future Alternative D traffic noise levels and the increase in noise levels associated with traffic on the local roadway network under the Alternative D traffic scenario.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. Where sound walls were noted to be prevalent along a roadway segment, a conservative offset of -5 dB was applied to the noise model.

5.0 ALTERNATIVES

In some locations sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience varying degrees of shielding from intervening barriers or sound walls. However, the traffic noise analysis is representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed.

Buildout of both the proposed General Plan and Alternative D may contribute to an exceedance of the City's transportation noise standards and/or result in significant increases in traffic noise levels at existing sensitive receptors. As indicated by Table 5.0-15, the related traffic noise level increases under Alternative D are predicted to increase between 0.5 to 11.2 dB versus Existing (2019) conditions. By comparison, under the proposed General Plan, the related traffic noise level increases under the proposed General Plan are predicted to increase between 0.6 to 10.6 dB versus Existing (2019) conditions. Further, more segments are anticipated to exceed significance thresholds under Alternative D. As such, predicted traffic noise increases under Alternative D would be slightly greater than the proposed General Plan.

Buildout of the General Plan may contribute to an exceedance of the City's transportation noise standards and/or result in significant increases in traffic noise levels at existing sensitive receptors. As indicated by Table 5.0-16, the related traffic noise level increases under Alternative D are predicted to increase between 0.2 to 9.7 dB versus Existing (2019) Plus Approved conditions. By comparison, under the proposed General Plan, the related traffic noise level increases under the proposed General Plan are predicted to increase between 0.2 to 9.1 dB versus Existing (2019) Plus Approved conditions. As such, under Existing (2019) Plus Approved conditions, predicted traffic noise increases under Alternative D would be slightly less than the proposed General Plan.

Both the General Plan and Alternative D were prepared to include numerous policies and actions intended to minimize excessive traffic noise associated with future development and improvement projects. Policies S-5.1 through S-5.4, S-5.7 through S-5.12, S-5.15 and Implementation measure S-5 identified below, are intended to minimize exposure to excessive noise, including noise associated with traffic. Specifically, Policies S-5.1, S-5.2, S-5.4, and S-5.7 support noise-compatible land uses in the vicinity of traffic noise sources and require that new development and infrastructure projects be reviewed for consistency with the noise standards established in Tables S-1. The standards required under Policy S-5.4, for exposure to traffic noise shown in Tables 3.12-12 and 3.12-13, meet or exceed the noise level standards of the adopted General Plan shown in Table 3.12-8. Policy S-5.7 and Implementation measure S-5 would ensure that new development mitigates potential noise impacts through incorporating the noise control treatments necessary to achieve acceptable noise levels. Implementation measure S-5d sets criteria for evaluating future increases in traffic noise levels. Implementation measure S-5c would ensure that the Municipal Code, including the updated noise ordinance, is consistent with the noise standards established in the policy document.

Implementation of the policies and actions of Alternative D discussed above and listed below will reduce noise and land use compatibility impacts from vehicular traffic noise sources and would ensure that new development is designed to include noise-attenuating features. However, as shown in Tables 5.0-14 and 5.0-15, the traffic noise increases associated with Alternative D exceed the applicable noise exposure criteria. While Alternative D includes policies to reduce noise

exposure and establishes more detailed policies and programs to identify and address potential noise impacts than the current General Plan, there will remain the potential for noise increases to exceed established standards. The universal use of noise attenuating features such as rubberized asphalt, soundwalls, berms, and improved building sound-insulation, could prevent transmission of excessive noise to the outdoor and indoor areas of sensitive land uses and/or could prevent projected increases in ambient noise levels. However, this approach would be infeasible in several situations. Specifically, rubberized asphalt reduces tire-pavement noise and when new, achieves a reduction of approximately 4 dB when compared to normal pavement surfaces. However, the noise reduction properties degrade over time, and the noise reduction would not be sufficient to reduce noise impacts in many areas of Manteca. In many cases, aesthetic concerns, costs, physical constraints, or other issues would prevent the universal implementation of adequate noise-attenuating features. In addition to their expense, soundwalls often block views and are regarded as unsightly. Moreover, the construction of soundwalls can result in reduced pedestrian and vehicle connectivity, which would contravene other goals of Alternative D. Therefore, the application of noise-attenuating features is not feasible in all circumstances. Therefore, Alternative D would have a **significant and unavoidable** impact relative to the potential for traffic noise to generate substantial increases in ambient noise levels, similar to the proposed General Plan.

Railroad Noise

Table 3.12-4 in Section 3.12 indicates that the 60 dB Ldn railroad noise contours for railroad lines may extend up to 833 feet from railroad centerlines. These noise levels would be expected under both the proposed General Plan and Alternative D. Additionally, Alternative D does not propose an increase in uses which could result in railroad noise. Future development located along these railroad lines could therefore be exposed to unacceptable exterior noise levels associated with operation of the railroad lines.

Policies S-5.1 through S-5.4 and S-5.7 through S-5.9, S-5.12, S-5.16 and Implementation measure S-5 identified below, are intended to minimize exposure to excessive noise, including noise associated with railroad operations. Specifically, Policies S-5.1, S-5.2, S-5.4, and S-5.7 support noise-compatible land uses in the vicinity of railroad noise sources and require that new development and infrastructure projects be reviewed for consistency with the noise standards established in Tables S-1. The Alternative D standards required under Policy S-5.4, for exposure to railroad noise shown in Table 3.12-4, meet or exceed the noise level standards of the adopted General Plan shown in Table 3.12-8. Policy S-5.7 and Implementation measure S-5 would ensure that new development mitigates potential noise impacts through incorporating the noise control treatments necessary to achieve acceptable noise levels.

Implementation of these policies and actions would ensure that development allowed under Alternative D is not exposed to noise levels associated with railroad operations in excess of the City's established standards. This is a **less than significant** impact, similar to the proposed General Plan.

Stationary Noise

Implementation of both the proposed General Plan and Alternative D could result in the future development of land uses that generate temporary or permanent noise levels in excess of applicable City noise standards for non-transportation noise sources. Such land uses may include commercial area loading docks, industrial uses, HVAC equipment, car washes, daycare facilities, auto repair, and recreational uses. While Alternative D does not specifically propose any new noise generating uses, the Land Use Map includes industrial land use designations, which may result in new noise sources. Specific land uses that would be located in the city are not known at this time. Additionally, noise from existing stationary sources, as identified in the background section of this chapter, will continue to impact noise-sensitive land uses in the vicinity. New projects which may include stationary noise sources such as automotive and truck repair facilities, tire installation centers, car washes, loading docks, corporation yards, parks, and play fields may create noise levels in excess of the City's standards.

Alternative D includes policies and actions that are intended to reduce noise associated with stationary sources (listed below). Specifically, Policies S-5.4, S-5.5, S-5.7, S-5.8 and Implementation measure S-5 would reduce noise associated with stationary sources. Implementation of Alternative D will result in a ***less than significant*** related to noise impacts from stationary noise sources, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

C-2.5: Include sound attenuation walls in the frontage improvements associated with Arterial roadways in accordance with City adopted Street Standards and Specifications, as amended.

S-5.1: Incorporate noise considerations into land use, transportation, and infrastructure planning decisions, and guide the location and design of noise-producing uses to minimize the effects of noise on adjacent noise-sensitive land uses, including residential uses and schools.

S-5.2: Ensure that Downtown noise levels remain acceptable and compatible with a pedestrian-oriented environment and higher density residential land uses.

S-5.3: Areas within Manteca exposed to existing or projected exterior noise levels from mobile noise sources exceeding the performance standards in Table S-1 shall be designated as noise-impacted areas. Figure S-3 identifies noise contours anticipated at General Plan buildout.

S-5.4: Require residential and other noise-sensitive development projects to satisfy the noise level criteria in Tables S-1 and S-2.

S-5.5: Require new stationary noise sources proposed adjacent to noise sensitive uses to be mitigated so as to not exceed the noise level performance standards in Table S-2, or a substantial increase in noise levels established through a detailed ambient noise survey.

S-5.7: Where the development of residential or other noise-sensitive land use is proposed for a noise-impacted area or where the development of a stationary noise source is proposed in the vicinity of noise-sensitive uses, an acoustical analysis is required as part of the environmental

review process so that noise mitigation may be considered in the project design. The acoustical analysis shall:

- Be the responsibility of the applicant.
- Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions and the predominant noise sources.
- Estimate existing and projected (20 years) noise levels in terms of the standards of Table S-1 or Table S-2, and compare those levels to the adopted policies of the Noise Element.
- Recommend appropriate mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element.
- Estimate noise exposure after the prescribed mitigation measures have been implemented.
- If necessary, describe a post-project assessment program to monitor the effectiveness of the proposed mitigation measures.

S-5.8: Apply noise level criteria applied to land uses other than residential or other noise-sensitive uses consistent with noise performance levels of Table S-1 and Table S-2.

S-5.12: For new residential development backing on to a freeway or railroad right-of-way, the developer shall be required to provide appropriate mitigation measures to satisfy the performance standards in Table S-1.

S-5.13: It is recognized that the City and surrounding areas are considered to be urban in nature and rely upon both the industrial and agricultural economy of the area. Therefore, it is recognized that noise sources of existing uses may exceed generally accepted standards.

S-5.14: Carefully review and give potentially affected residents an opportunity to fully review any proposals for the establishment of helipads or heliports.

S-5.15: Recognizing that existing noise-sensitive uses may be exposed to increase noise levels due to circulation improvement projects associated with development under the General Plan and that it may not be feasible to reduce increased traffic noise levels to the criteria identified in Table S-1, the following criteria may be used to determine the significance of noise impacts associated with circulation improvement projects:

- Where existing traffic noise levels are less than 60 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and
- Where existing traffic noise levels range between 60 and 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant; and
- Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB Ldn increase in noise levels due to roadway improvement projects will be considered significant.

S-5.16: Work with the Federal Railroad Administration and passenger and freight rail operators to reduce exposure to rail and train noise, including establishing train horn "quiet zones" consistent with the federal regulations.

5.0 ALTERNATIVES

Actions

S-5a: *Require an acoustical analysis that complies with the requirements of S-5.7 where:*

- *Noise sensitive land uses are proposed in areas exposed to existing or projected noise levels exceeding the levels specified in Table S-1 or S-2.*
- *Proposed transportation projects are likely to produce noise levels exceeding the levels specified in Table S-1 or S-2 at existing or planned noise sensitive uses.*

S-5b: *Assist in enforcing compliance with noise emissions standards for all types of vehicles, established by the California Vehicle Code and by federal regulations, through coordination with the Manteca Police Department and the California Highway Patrol.*

S-5c: *Update the City's Noise Ordinance (Chapter 9.52) to reflect the noise standards established in this Noise Element and proactively enforce the City's Noise Ordinance, including requiring the following measures for construction:*

- *Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or federal holidays, without a specific exemption issued by the City.*
- *A Construction Noise Management Plan shall be submitted by the applicant for construction projects, when determined necessary by the City. The Construction Noise Management Plan shall include proper posting of construction schedules, appointment of a noise disturbance coordinator, and methods for assisting in noise reduction measures.*
- *Noise reduction measures may include, but are not limited to, the following:*
 - Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.*
 - Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.*
 - Temporary power poles or zero-emission power sources shall be used instead of generators where feasible.*
 - Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City of provide equivalent noise reduction.*
 - The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all*

available noise reduction controls are implemented.

- f. Delivery of materials shall observe the hours of operation described above.
- g. Truck traffic should avoid residential areas to the extent possible.

S-5d: In making a determination of impact under the California Environmental Quality Act (CEQA), a substantial increase will occur if ambient noise levels have a substantial increase. Generally, a 3 dB increase in noise levels is barely perceptible, and a 5 dB increase in noise levels is clearly perceptible. Therefore, increases in noise levels shall be considered to be substantial when the following occurs:

- When existing noise levels are less than 60 dB, a 5 dB increase in noise will be considered substantial;
- When existing noise levels are between 60 dB and 65 dB, a 3 dB increase in noise will be considered substantial;
- When existing noise levels exceed 65 dB, a 1.5 dB increase in noise will be considered substantial.

Additional or alternative criteria can be used for determining a substantial increase in noise levels. For instance, if the overall increase in noise levels occurs where no noise-sensitive uses are located, then the City may use their discretion in determining if there is any impact at all. In such a case, the following alternative factors may be used for determining a substantial increase in noise levels:

- the resulting noise levels;
- the duration and frequency of the noise;
- the number of people affected;
- conforming or non-conforming land uses;
- the land use designation of the affected receptor sites;
- public reactions or controversy as demonstrated at workshops or hearings, or by correspondence; and
- prior CEQA determinations by other agencies specific to the project.

S-5e: Control noise at the source through use of insulation, berms, building design and orientation, buffer space, staggered operating hours, and similar techniques. Where such techniques would not meet acceptable levels, use noise barriers to attenuate noise associated with new noise sources to acceptable levels.

S-5f: Require that all noise-attenuating features are designed to be attractive and to minimize maintenance.

S-5g: Evaluate new transportation projects, such as truck routes, rail or public transit routes, and transit stations, using the standards contained in Table S-1. However, noise from these projects may be allowed to exceed the standards contained in Table S-1, if the City Council finds that there are special overriding circumstances.

S-5h: Work with the Federal Rail Authority and passenger and freight rail service providers to establish a Quiet Zone at at-grade crossings in the City. Where new development would be affected by the train and rail noise, require project applicants to fund a fair-share of: a) studies associated with the application for a Quiet Zone, and b) alternative safety measures associated with the Quiet Zone (including, but not limited to signage, gates, lights, etc.).

5.0 ALTERNATIVES

S-5i: Work in cooperation with Caltrans, the Union Pacific Railroad, San Joaquin Regional Rail Commission, and other agencies where appropriate to maintain noise level standards for both new and existing projects in compliance with Table S-1.

IMPACT 3.12-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT GENERATE SUBSTANTIAL TEMPORARY INCREASES IN AMBIENT NOISE LEVELS ASSOCIATED WITH CONSTRUCTION ACTIVITIES IN THE VICINITY OF THE PROJECT IN EXCESS OF APPLICABLE STANDARDS (LESS THAN SIGNIFICANT)

New development, maintenance of roadways, and installation of public utilities and infrastructure that would be accommodated by both Alternative D and the proposed General Plan would generally require construction activities. These construction activities may include the use of heavy equipment and impact tools. Table 5.0-17 provides a list of the types of equipment which may be associated with construction activities, and their associated noise levels.

TABLE 5.0-17: CONSTRUCTION EQUIPMENT NOISE

TYPE OF EQUIPMENT	PREDICTED NOISE LEVELS, LMAX DB				DISTANCES TO NOISE CONTOURS (FEET)	
	NOISE LEVEL AT 50'	NOISE LEVEL AT 100'	NOISE LEVEL AT 200'	NOISE LEVEL AT 400'	70 dB LMAX CONTOUR	65 dB LMAX CONTOUR
Backhoe	78	72	66	60	126	223
Compactor	83	77	71	65	223	397
Compressor (air)	78	72	66	60	126	223
Concrete Saw	90	84	78	72	500	889
Dozer	82	76	70	64	199	354
Dump Truck	76	70	64	58	100	177
Excavator	81	75	69	63	177	315
Generator	81	75	69	63	177	315
Jackhammer	89	83	77	71	446	792
Pneumatic Tools	85	79	73	67	281	500

SOURCE: ROADWAY CONSTRUCTION NOISE MODEL USER'S GUIDE. FEDERAL HIGHWAY ADMINISTRATION. FHWA-HEP-05-054. JANUARY 2006. SAXELBY ACOUSTICS 2020.

Activities involved in construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction could result in periods of significant ambient noise level increases and the potential for annoyance. However, both the proposed General Plan and Alternative D include policies and actions that are intended to reduce noise associated with construction noise (listed below). Specifically, Policy S-5.6 and Implementation measure S-5c would reduce noise associated with construction activities. Alternative D would result in a **less than significant** impact, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

S-5.6: Regulate construction-related noise to reduce impacts on adjacent uses to the criteria identified in Table S-2 or, if the criteria in Table S-2 cannot be met, to the maximum level feasible using best management practices and complying with the MMC Chapter 9.52.

Actions

S-5c: Update the City's Noise Ordinance (Chapter 9.52) to reflect the noise standards established in this Noise Element and proactively enforce the City's Noise Ordinance, including requiring the following measures for construction:

- *Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or federal holidays, without a specific exemption issued by the City.*
- *A Construction Noise Management Plan shall be submitted by the applicant for construction projects, when determined necessary by the City. The Construction Noise Management Plan shall include proper posting of construction schedules, appointment of a noise disturbance coordinator, and methods for assisting in noise reduction measures.*
- *Noise reduction measures may include, but are not limited to, the following:*
 - a. *Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.*
 - b. *Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. This could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.*
 - c. *Temporary power poles or zero-emission power sources shall be used instead of generators where feasible.*
 - d. *Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.*
 - e. *The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.*
 - f. *Delivery of materials shall observe the hours of operation described above.*
 - g. *Truck traffic should avoid residential areas to the extent possible.*

IMPACT 3.12-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT RESULT IN GROUND BORNE VIBRATION OR GROUND BORNE NOISE LEVELS (LESS THAN SIGNIFICANT)

Development and traffic patterns facilitated by both the proposed General Plan and Alternative D could expose persons to excessive groundborne vibration and groundborne noise levels attributable to construction activities, stationary sources, trains, or heavy trucks. Future uses accommodated by the General Plan may involve activities, such as truck deliveries, loading, and unloading that cause groundborne vibration and groundborne noise. The proposed types of uses,

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locations of buildings, and their specific sensitivity to vibration are not known at this time. Future uses located in close proximity to railroad tracks or truck routes could be exposed to ground vibration levels exceeding FTA guidelines.

Construction activities facilitated by both the proposed General Plan and Alternative D may include demolition of existing structures, site preparation work, excavation of below grade levels, foundation work, pile driving, and new building erection. Demolition for an individual site may last several weeks and at times may produce substantial vibration. Excavation for underground levels may also occur on some project sites and vibratory pile driving could be used to stabilize the walls of the excavated area. Piles or drilled caissons may also be used to support building foundations.

Heavy tracked vehicles (e.g., bulldozers or excavators) can generate distinctly perceptible groundborne vibration levels when this equipment operates within approximately 25 feet of sensitive land uses. Impact pile drivers can generate distinctly perceptible groundborne vibration levels at distances up to about 100 feet, and may exceed building damage thresholds within 25 feet of any building, and within 50-100 feet of a historical building, or building in poor condition. Other construction activities and activities involving use of heavy equipment, 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 also potentially generate substantial vibration in the immediate vicinity.

Depending on the proximity of existing structures to each construction site, the structural soundness of the existing buildings, and the methods of construction used, vibration levels may be high enough to damage existing structures. As with any type of construction, groundborne vibration and noise levels may at times be perceptible. However, construction phases that have the highest potential of producing vibration (pile driving and use of jackhammers and other high power tools) would be intermittent and would only occur for short periods of time for any individual project site.

General Plan Action S-5a requires an acoustical analysis, which would address noise and groundborne vibration, to be prepared for development and transportation projects that may produce noise in excess of the City's standards or expose sensitive receptors to noise and vibration levels in excess of City standards. Action S-5j requires new residential projects located adjacent to major freeways, truck routes, hard rail lines, or light rail lines to follow the FTA screening distance criteria to ensure that groundborne vibrations do not exceed acceptable levels. Therefore, the potential for excessive groundborne noise or groundborne vibration impacts associated with Alternative D implementation is ***less than significant***, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Actions

S-5c: Update the City's Noise Ordinance (Chapter 9.52) to reflect the noise standards established in this Noise Element and proactively enforce the City's Noise Ordinance, including requiring the

following measures for construction:

- *Restrict construction activities to the hours of 7:00 a.m. to 7:00 p.m. on Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturdays. No construction shall be permitted outside of these hours or on Sundays or federal holidays, without a specific exemption issued by the City.*
- *A Construction Noise Management Plan shall be submitted by the applicant for construction projects, when determined necessary by the City. The Construction Noise Management Plan shall include proper posting of construction schedules, appointment of a noise disturbance coordinator, and methods for assisting in noise reduction measures.*
- *Noise reduction measures may include, but are not limited to, the following:*
 - a. *Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.*
 - b. *Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used. This muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available. this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.*
 - c. *Temporary power poles or zero-emission power sources shall be used instead of generators where feasible.*
 - d. *Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City of provide equivalent noise reduction.*
 - e. *The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.*
 - f. *Delivery of materials shall observe the hours of operation described above.*
 - g. *Truck traffic should avoid residential areas to the extent possible.*

S-5j: *The City shall require new residential projects located adjacent to major freeways, truck routes, hard rail lines, or light rail lines to follow the FTA screening distance criteria to ensure that groundborne vibrations to do not exceed acceptable levels.*

Public Services and Recreation

IMPACT 3.13-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT RESULT IN ADVERSE PHYSICAL IMPACTS ON THE ENVIRONMENT ASSOCIATED WITH THE NEED FOR NEW GOVERNMENTAL FACILITIES OR THE NEED FOR NEW OR PHYSICALLY ALTERED GOVERNMENTAL FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL IMPACTS (LESS THAN SIGNIFICANT)

Development accommodated under the General Plan would result in additional residents and businesses in the City, including new residential, industrial, office, and commercial uses. As described in Chapter 2.0, the General Plan is expected to accommodate up to 38,103 new residential dwelling units and up to 28,713,612 square feet of non-residential building space within the city limits at full buildout.

Alternative D would result in approximately 64,900 housing units at buildout. This is approximately 1,453 fewer housing units, which reflects an increase of 5,673 single family units and a decrease of 7,126 multi-family units within the Planning Area when compared to the proposed General Plan Land Use Map. Employment opportunities would also decrease under this alternative, with approximately 10,701 more jobs created within the Planning Area when compared to the proposed General Plan. Under full buildout conditions, this alternative would result in a total population within the Planning Area of approximately 206,381, which is slightly less than the total population projection of 211,003 under the proposed General Plan. Additionally, Alternative D would result in an increase of the total Planning Area by 473 acres. Further, this alternative would increase the amount of land designated for Public/Quasi-Public uses compared to the General Plan by 55 acres. Overall, the increase in non-residential development potential would balance out the increase in residential development potential under Alternative D. Overall, the demand on public services under this alternative would be comparable to the proposed General Plan.

Development and growth facilitated by both the proposed General Plan and Alternative D would result in increased demand for public services, including fire protection, law enforcement, schools, parks, libraries, and other public and governmental services. Both the proposed General Plan and Alternative D includes policies and actions to ensure that public services are provided at acceptable levels and that the City will maintain and implement public facility master plans, in collaboration with appropriate outside service providers and other agencies, to ensure compliance with appropriate regional, state, and federal laws and to provide efficient public facilities and services to Manteca.

As the demand for services increases, there will likely be a need to address acceptable service ratios, response times, and other performance standards. New or expanded service structures (e.g., office, maintenance, and administrative buildings and facilities, schools, parks, fire facilities, libraries, etc.) will be needed to provide for adequate staffing, equipment, and appropriate facilities to serve growth in the city.

Existing facilities may be expanded at their current location. New facilities may also be constructed. The Public/Quasi-Public, Park, and Open Space land use designations would

accommodate the majority of new public facilities necessary to provide community services. There would likely be environmental impacts associated with the construction or expansion of the facilities needed to provide public services.

Both the proposed General Plan and Alternative D do not propose or approve actual development projects, or the physical expansion of public facilities. As future development and infrastructure projects (including new governmental facilities) are considered by the City, each project will be evaluated for conformance with the policies and actions, Municipal Code, and other applicable regulations. Such development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Any future expansion of public facilities required by growth in the City would be required to be reviewed for site-specific impacts.

As previously stated, new facilities will be needed to serve growth contemplated in both the proposed General Plan and Alternative D. The environmental effect of providing the public services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as Alternative D does not propose or authorize development nor does it designate specific projects for new or expanded public facilities. However, new and expanded facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in throughout this chapter of the Draft EIR. As discussed in this chapter, Alternative D policies and actions that are specifically designed to reduce or avoid environmental impacts of construction and development, which includes public facilities. There are no additional significant impacts related to construction of governmental and public facilities, consistent with Land Use Map, beyond the impacts that are analyzed throughout this EIR. Any future development, including new and expanded governmental facilities, under the General Plan would be subject to project-level review, would be required to comply with regulations, policies, and standards included in Alternative D, and would be reviewed for compliance with CEQA, including analysis of project-level impacts and mitigation measures as appropriate.

Alternative D includes a range of policies and actions (listed below) to ensure that public services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, and that new development funds its fair share of services. Therefore, impacts related to the provisions and need for public facilities are *less than significant*, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

CF-1.1: Encourage the implementation of new and sustainable techniques and technologies to provide the best available level of community services in a cost-effective manner.

CF-1.2: Ensure that new growth and development participates in the provision and expansion of essential community services and facilities, including parks, fire and police facilities, schools,

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utilities, roads, and other needed infrastructure, does not exceed the City's ability to provide services, and does not place an economic or environmental burden on existing residents.

CF-1.3: Require new development to demonstrate that the City's existing or planned community services and facilities can accommodate the increased demand for said services and facilities prior to or at completion of the project.

CF-1.4: Require new development to offset or mitigate impacts to community services and facilities, including fair share contribution of all costs of required public infrastructure and services, to ensure that service levels for existing users are not degraded or impaired.

CF-1.5: Require public improvements and facilities to enhance, rather than degrade, the natural environment.

CF-1.6: Encourage comprehensive development of public facilities and services rather than incremental, single projects.

CF-1.7: Plan and develop public services and facilities to support economic development and residential growth.

CF-2.1: Prioritize public safety through ensuring adequate staffing, implementing best available technologies, capital investments in public safety, and organizing and utilizing community volunteers.

CF-2.2: Ensure that the Police Department has adequate funding, staff, and equipment to accommodate existing and future growth in Manteca.

CF-2.3: Strive to provide a police force level of a minimum of 1.00 officer per 1,000 population.

CF-2.4: Endeavor through adequate staffing and patrol arrangements to maintain the minimum feasible police response times for police calls.

CF-2.5: Periodically review and, if necessary, amend the criteria for determining the circumstances under which police service will be enhanced.

CF-2.6: Promote and support community-based crime prevention programs, as an important augmentation to the provision of professional police services.

CF-2.7: Emphasize the use of physical site planning as an effective means of preventing crime. Open spaces, landscaping, parking lots, parks, play areas, and other public spaces should be designed with maximum feasible visual and aural exposure to community residents.

CF-2.8: Promote coordination between land use planning and urban design through consultation and coordination with the Police Department during the review of new development applications.

CF-3.1: Through adequate staffing and station locations, maintain a maximum five-minute travel response time 90% of the time for fire and emergency calls and an overall fire insurance (ISO) rating of 2 or better for all developed areas within the City, and a minimum staffing of 3 personnel for all fire stations.

CF-3.2: Provide fire services to serve the existing and projected population.

CF-4.8: Consider the effects of new development on parks, trails, and recreation facilities, programs, and services, and condition new development appropriately to ensure that the City maintains an adequate inventory and network of facilities and resources.

CF-4.10: Actively promote and participate in regional coordination and planning efforts to provide quality parks, trails, and recreation facilities throughout Manteca and the surrounding areas. The City should emphasize regional coordination to leverage funding, maintenance, and/or resources to develop a diverse range of regional recreational opportunities.

CF-5.2: Continue to work with the local school districts to develop criteria for the designation of school sites and ensure that adequate sites are designated and facilities are planned to accommodate new residential development, with a focus on providing neighborhood schools. Criteria should address the following:

- School locations are encouraged to be sited to relate well to adjacent and nearby uses, including neighborhood focal areas and park sites.*
- School sites and school enrollment sizes should contribute to the neighborhood character and provide opportunities for joint-use, including capacity to accommodate a broad range of programs and services and augment neighborhood parks and recreation facilities.*
- School districts are encouraged to comply with City standards in the design and landscaping of school facilities.*

It is noted that school site locations can be adjusted if the school district chooses to note locate in the area and the land will be designated Medium Density Residential.

CF-6.1: Ensure the water system and supply is adequate to meet the needs of existing and future development and is utilized in a sustainable manner.

CF-6.5: Prohibit extension of City water services to unincorporated areas except in extraordinary circumstances. Existing commitments for City water service outside the City limits shall continue to be honored.

CF-6.6: Limit development of private water wells to occur only if the City makes a finding that it cannot feasibly provide water service. Such systems shall only be allowed to be used until such time as City water service becomes available.

CF-6.7: Ensure that all new development provides for and funds a fair share of the costs for adequate water distribution, including line extensions, easements, and plant expansions.

CF-7.1: Ensure adequate wastewater collection and treatment infrastructure to serve existing and future development and the safe disposal of wastes.

CF-7.2: Develop new sewage treatment and trunk line capacity as necessary to serve new development. The City shall incorporate current technologies into the design and operation of these facilities.

CF-7.3: Only extend sewer services to unincorporated areas under extraordinary circumstances. Existing commitments for sewer service outside the city limits shall continue to be honored.

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CF-7.4: Only allow the development of individual septic systems where it is not feasible to provide public sewer service. Such systems shall only be used until such time as City sewer service becomes available and meet the minimum standards of the San Joaquin County Health Department.

Actions

CF-1a: Periodically review the fee schedules for water and sewer connections, city facilities and major equipment, and development impact fees and revise fees as necessary.

CF-1b: Cooperate with other jurisdictions, agencies, and utility providers where appropriate to achieve timely and cost-effective provision of public facilities and services.

CF-1a: Periodically review the fee schedules for water and sewer connections, city facilities and major equipment, and development impact fees and revise fees as necessary to cover the cost of services and facilities.

CF-1b: Cooperate with other jurisdictions, agencies, and utility providers where appropriate to achieve timely and cost-effective provision of public facilities and services.

CF-2c: As part of the development review process, consult with the Police Department in order to ensure that the project design facilitates adequate police services and that the project addresses its impacts on police services.

CF-6a: Update the Public Facilities Implementation Plan, regarding water supply and distribution, every five years. The update shall reflect the most recent adopted groundwater studies that establish a safe yield for the groundwater basin and/or establish maximum extraction from the basin. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-6c: Develop new water sources, storage facilities, and major distribution lines as necessary to serve new development.

CF-6e: Continue to assess a water development fee on all new commercial, industrial, and residential development sufficient to fund system-wide capacity improvements. The water development fee schedule shall be periodically reviewed and revised as necessary.

CF-6g: Require, as a condition of project approval, dedication of land and easements, or payment of appropriate fees and exactions, to help offset municipal costs of expansion of water treatment facilities and delivery systems.

CF-7a: Update the Public Facilities Implementation Plan regarding wastewater collection and treatment every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-7b: Require new development to provide for and fund a fair share of the costs for adequate sewer distribution, including line extensions, easements, and plant expansions.

LU-2h: Coordinate with the cities of Lathrop and Ripon in implementing the respective Memorandums of Understanding regarding future land use and public services and facilities in mutually agreed upon areas of common interest.

IMPACT 3.13-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT RESULT IN ADVERSE PHYSICAL IMPACTS ASSOCIATED WITH THE DETERIORATION OF EXISTING PARKS AND RECREATION FACILITIES OR THE CONSTRUCTION OF NEW PARKS AND RECREATION FACILITIES (LESS THAN SIGNIFICANT)

Growth accommodated under both the proposed General Plan and Alternative D would include a range of uses that would increase the population of the City and also attract additional workers and tourists to the City. Such growth would result in increased demand for parks and recreation facilities. It is anticipated that over the life of Alternative D, use of parks, trails, and recreation facilities would increase, due to new residents and businesses. The additional demand on existing parks and recreational facilities would increase the need for maintenance and improvements. These improvements could have environmental impacts, although the exact impacts cannot be determined since the potential improvements are unknown.

The provision of new parks and recreation facilities would reduce the potential for adverse impacts and physical deterioration of existing parks and recreation facilities, by providing additional facilities to accommodate the demand for parks and recreation facilities. These new facilities would be provided at a pace and in locations appropriate to serve new development, as required to maintain the City adopted standard for park space acreage at 5.0 acres for every 1,000 residents (as required by Policy CF-4.4). Development under both the General Plan and Alternative D would indirectly lead to the construction of new parks and recreation facilities to serve new growth and to meet existing parks and recreation needs. Both the General Plan and Alternative D support the creation of new parks and recreation facilities, including new parks and trails, to accommodate a wide range of activities for all age groups. These new parks and recreation facilities would be spread throughout areas proximate to new development in and around existing neighborhoods. Neighborhood and community parks and trails would generally be accommodated in the Public/Quasi-Public, Park, and Open Space Land use designations.

Policy CF-4.4 establishes a citywide ratio of five acres of parkland per 1,000 residents. The City currently provides approximately 5.01 acres of parkland for every 1,000 people in addition to the recreational opportunities available in the Dos Reis Regional Park, Mossdale Crossing Park, private parks, and other nearby regional parks.

Under the proposed General Plan, the projected total buildout population (which excludes existing plus projected population growth) is 121,168. At a ratio of five acres of parkland per 1,000 residents, buildout of the General Plan within the City limits would result in a demand for approximately 605 acres of developed parklands, if the City's population levels were to reach the buildout population potential of the proposed General Plan.

Under Alternative D, the projected total buildout population (which excludes existing plus projected population growth) is 116,546. At a ratio of five acres of parkland per 1,000 residents, buildout of Alternative D within the City limits would result in a demand for approximately 583 acres of developed parklands, if the City's population levels were to reach the buildout population potential of Alternative D.

Under the proposed General Plan, projected additional population (which excludes existing population) as a result of buildout of the General Plan land use map (as detailed in Chapter 2.0) is

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20,891 (121,168 minus 89,835). At a ratio of five acres of parkland per 1,000 residents, buildout of the General Plan within the City limits would result in a demand for approximately 104.5 acres of developed parkland. It should be noted that new development would be required to fund its fair share for required parkland but would not make up for existing system deficiencies.

Under Alternative D, the projected additional population (which excludes existing population) as a result of buildout of the land use map is 27,711 (116,546 minus 89,835). At a ratio of five acres of parkland per 1,000 residents, buildout of Alternative D within the City limits would result in a demand for approximately 133.6 acres of developed parkland. The demand would increase under Alternative D compared to the proposed General Plan. Alternative D would provide 698 acres of land designated for park uses (compared to 726 acres under the proposed General Plan. Alternative D would also decrease the amount of land dedicated for open space uses (447 acres compared to 471 acres under the proposed General Plan). It should be noted that, identical to the proposed General Plan, new development under Alternative D would be required to fund its fair share for required parkland but would not make up for existing system deficiencies.

Alternative D does not specifically propose any development projects, including parks. As a result, site-specific physical impacts of future park development and construction cannot be determined until future projects are brought forward for review. As future parks and recreation projects are considered by the City, each project will be evaluated for conformance with Alternative D, Municipal Code, and other applicable regulations. Parks and recreation projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

In addition to ensuring that new and expanded parks and recreation facilities are provided to accommodate new growth, both the General Plan and Alternative D include policies and actions to ensure that parks and recreation facilities are adequately maintained and improved to serve both existing and planned growth.

Alternative D does not propose or approve any development nor does it designate specific projects for new or expanded parks and recreational facilities. Alternative D includes a range of policies and actions (listed below) to ensure that parks and recreational facilities are adequately funded, and that new development funds its fair share of services needed to meet Alternative D objectives. New development is required to participate in the provision and expansion of public services, recreational amenities, and facilities, and is also required to demonstrate that the City's public services and facilities can accommodate the increased demand for said services and facilities associated with future projects during the entitlement process.

Alternative D does not propose or approve the construction or expansion of parks or recreational facilities. Any new or expanded parks or recreational facilities that may be constructed in the future would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the parks and recreational facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under Alternative D. These impacts are described in this chapter of this Draft EIR. As discussed, Alternative D includes policies and actions that are specifically designed to reduce or avoid environmental impacts of construction and development, which includes parks

and recreational facilities. There are no additional significant impacts related to construction of parks and recreational facilities, consistent with the land use designation and Land Use Map, beyond the impacts that are analyzed throughout this chapter. Any future development under Alternative D would be required to comply with regulations, policies, and standards included in Alternative D would be reviewed for compliance with CEQA, including analysis of project-level impacts and mitigation measures as appropriate.

Therefore, impacts related to the provisions and need for park and recreational facilities are ***less than significant***, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

CF-4.1: Ensure the provision of sufficient parks, trails, and recreation facilities that are well distributed and interconnected throughout the community.

CF-4.2: Expand, renovate, and maintain high quality parks, trails, and recreation facilities, programs, and services to accommodate existing and future needs that address traditional and non-traditional recreation, active and passive recreation, wellness, historical, cultural arts, environmental education, conservation, accessibility, inclusion, diversity, safety, and new technology.

CF-4.3: Uphold design, construction, implementation, and maintenance standards to ensure high quality parks, trails, and recreation facilities, programs, and services, now and into the future.

CF-4.4: Maintain an overall minimum ratio of 5 acres of developed neighborhood and community parkland per 1,000 residents within the city limits, requiring new development to contribute to its fair share of park and recreation needs. The distribution of land between park types and guidelines for park types shall be determined within the Parks and Recreation Master Plan.

CF-4.5: Develop new parks, trails, and recreation facilities through developer fees in areas which are accessible and convenient to the community, prioritizing areas that are lacking these facilities.

CF-4.6: Endeavor to develop one or more community parks as defined in the Parks and Recreation Master Plan, with a focus on accommodating community-wide events.

CF-4.7: As part of the next Parks and Recreation Master Plan update, address opportunities to create a nature-based park, with priority to a park developed as part of a conservation program for natural resource lands. Priority should be given to City-owned site that could provide opportunities for hiking and fishing.

CF-4.8: Consider the effects of new development on parks, trails, and recreation facilities, programs, and services, and condition new development appropriately to ensure that the City maintains an adequate inventory and network of facilities and resources.

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CF-4.9: Cooperate with the school districts in opportunities for joint-use of school and park and recreational facilities.

CF-4.10: Actively promote and participate in regional coordination and planning efforts to provide quality parks, trails, and recreation facilities throughout Manteca and the surrounding areas. The City should emphasize regional coordination to leverage funding, maintenance, and/or resources to develop a diverse range of regional recreational opportunities.

CF-4.11: Emphasize and prioritize public outreach and educational programs that inform the community of available parks, trails, and recreation facilities, programs, and services available in order to increase and enhance community use of these facilities, programs, and services.

CF-4.12: Encourage the expansion of private commercial recreational facilities, programs, and services available in order to increase and enhance community use of these facilities, programs, and services.

CF-4.13: Develop a convenient system of pedestrian sidewalks and pathways and multiuse trails, linking City parks, major open space areas, and the downtown core.

CF-4.14: Support recreational activities, events, organized sports leagues, and other programs that serve broad segments of the community.

CF-4.15: Allow parks as a permitted use in all residential land use designations.

Actions

CF-1a: Periodically review the fee schedules for water and sewer connections, city facilities and major equipment, and development impact fees and revise fees as necessary.

CF-1b: Cooperate with other jurisdictions, agencies, and utility providers where appropriate to achieve timely and cost-effective provision of public facilities and services.

CF-4a: Continuously monitor the condition of parks, trails, and recreation facilities throughout the community and prioritize the rehabilitation of existing facilities that serve the greatest number of residents.

CF-4b: Periodically review the City's Parks and Recreation Master Plan to ensure that parks and recreation needs are adequately identified and prioritized, to update cost estimates for park acquisition and development and remaining development potential based on the General Plan and to ensure that the City maintains a minimum overall ratio of 5 acres of parkland for every 1,000 residents.

CF-4c: As part of the next Parks and Recreation Master Plan Update, consider the community needs identified during the General Plan process, including a community park and a combined or separate facility to accommodate community-wide events, a nature-based park, bicycle and pedestrian improvements necessary to improve access to park and recreation facilities, methods

to increase physical activity opportunities in the community, and increased joint use of facilities with the school districts.

CF-4d: Investigate and pursue a diverse range of funding opportunities for parks, trails, and recreation facilities, including but not limited to, grants, joint use/management strategies, user fees, private sector funding, assessment districts, homeowners' associations, non-profit organizations, funding mechanisms for the maintenance of older parks, and management assistance through Federal, State, and regional partnerships.

CF-4e: Periodically review, and if necessary, update the Parks and Recreation development impact fees in order to ensure that the City's parks and recreation needs are adequately identified and prioritized and that new development continues to provide a fair-share contribution towards parks, trails, and recreation facilities.

CF-4f: Implement a wide range of public outreach programs, including the City's website, newsletters, other emerging communications technologies, and partnerships with community organizations to keep the public informed about available parks, trails, and recreation facilities, programs, and services.

CF-4g: Continue to pursue joint-use of schools and detention facilities to supplement the parks, trails, and recreation needs of the community.

CF-4h: Through conditions of approval and/or development agreements, ensure that new development provides for its fair-share of park and recreation facilities, including connections to adjacent facilities, and that the development of new parks, trails, and recreation facilities occurs during the infrastructure construction phase of new development projects so that they are open and available to the public prior to completion of the project.

Transportation and Circulation

METHODS AND THRESHOLDS OF ANALYSIS

Analysis of Alternative D was conducted using the methods and thresholds discussed in Chapter 3.14. Because SB 743 eliminated the use of LOS for CEQA impact analysis purposes, it is not included in this chapter. However, results of LOS analysis are provided in Appendix D for informational purposes.

Table 5.0-18 depicts Alternative D land use. Compared to proposed General Plan land use, dwelling units are greater while employment is less.

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TABLE 5.0-18: SCENARIO D MAJOR LAND USE

<i>LAND USE</i>	<i>UNITS</i>	<i>2019 BASELINE</i>	<i>BASELINE PLUS APPROVED PROJECTS</i>	<i>PROPOSED GENERAL PLAN BUILDOUT</i>	<i>ALTERNAT IVE D BUILDOUT</i>	<i>INCREASE (ALTERNATIVE D vs. 2019 BASELINE)</i>	<i>ALTERNATIVE D vs. PROPOSED GENERAL PLAN BUILDOUT</i>
Single family	Dwelling units	21,226	28,060	41,666	47,360	123%	14%
Multi family	Dwelling units	4,788	6,035	21,924	14,829	210%	-32%
Age restricted	Dwelling units	2,236	2,741	2,741	2,741	23%	0%
Restaurant	Employees	730	1,125	2,311	2,433	233%	5%
Industrial	Employees	4,721	7,972	15,458	18,764	297%	21%
Office	Employees	1,291	3,631	5,833	12,370	858%	112%
Retail	Employees	4,831	7,421	15,053	15,728	226%	4%

SOURCE: FEHR & PEERS, 2022

IMPACT 3.14-1: ALTERNATIVE D IMPLEMENTATION MAY RESULT IN VMT PER DWELLING UNIT AND VMT PER EMPLOYEE INCREASES THAT ARE GREATER THAN 85 PERCENT OF BASELINE CONDITIONS (SIGNIFICANT AND UNAVOIDABLE)

Table 5.0-19 shows the VMT measures per dwelling unit, per employee, per resident, and per service population for Alternative D conditions, as well as for the General Plan buildout conditions and baseline condition plus development projects. As shown in the table, Alternative D would result in increased VMT per dwelling unit for residential land uses, increased VMT per employee for industrial uses, and increased VMT per employee for restaurant, office, and retail land uses as compared to the existing condition. Alternative D would also result in an increase in total VMT in comparison to the existing condition as well as in comparison to the baseline plus development projects scenario.

Table 5.0-19 also shows that Alternative D would also result in increased VMT per dwelling unit for residential land uses and VMT per employee for industrial uses, VMT per employee for restaurant, office, and retail land uses as compared to the General Plan buildout conditions. It would also result in a six percent increase in total VMT in comparison to the General Plan buildout conditions.

TABLE 5.0-19: VMT PER DWELLING UNIT AND PER EMPLOYEE FOR EXISTING CONDITION, BASELINE PLUS PROJECTS, PROPOSED GENERAL PLAN, AND ALTERNATIVE D

LAND USE	UNITS	EXISTING CONDITION (2019 BASELINE)	THRESHOLD (85 PERCENT OF BASELINE)	BASELINE PLUS DEVELOPMENT PROJECTS	PROPOSED GENERAL PLAN	ALT D	ALT D VS. EXISTING CONDITION	ALT D VS. PROPOSED GENERAL PLAN
Single family	VMT per dwelling unit	103.8	88.2	100.2	78.3	75.5	-27%	-4%
Multi family	VMT per dwelling unit	78.6	66.8	74.7	59.4	57.2	-27%	-4%
Age restricted	VMT per dwelling unit	44.1	37.5	40.5	29.9	28.5	-35%	-5%
Restaurant	VMT per employee ¹	186.0	158.1	179.5	226.1	229.3	23%	1%
Industrial	VMT per employee	75.3	64.0	62.8	75.2	75.0	0%	0%
Office	VMT per employee	32.4	27.5	35.0	41.7	43.1	33%	3%
Retail	VMT per employee	118.9	101.1	130.0	207.6	211.9	78%	2%
All residential	VMT per dwelling unit	94.8	NA ⁵	91.6	70.0	69.3	-27%	-1%
All residential	VMT per resident ²	29.8	NA	28.8	22.0	21.8	-27%	-1%
All employment	VMT per employee	82.2	NA	82.5	122.0	113.0	37%	-7%
All land uses	VMT per service population ^{2,3}	36.7	NA	38.3	39.9	41.4	13%	4%
Total VMT	VMT	3,755,100	NA	4,957,000	9,376,561	9,921,000	164%	6%

NOTES: ¹VMT PER EMPLOYEE RATIOS INCLUDE ALL TRIPS BY EMPLOYEES, CUSTOMERS, AND DELIVERIES
²BASED ON 3.18 RESIDENTS/DWELLING UNIT (CALIFORNIA DEPARTMENT OF FINANCE, E-5 CITY/COUNTY POPULATION AND HOUSING ESTIMATES, 1/1/2020)
³SERVICE POPULATION INCLUDES RESIDENTS AND EMPLOYEES
⁴VMT INCLUDES FULL LENGTH OF ALL TRIPS WITH EITHER AN ORIGIN OR DESTINATION WITHIN THE PLANNING AREA
⁵NA = NOT APPLICABLE, METRIC FOR INFORMATIONAL PURPOSES ONLY

SOURCE: FEHR & PEERS, 2022

Under Alternative D, VMT for residents and employees would be decreased compared to the proposed General Plan. Although not part of the formal impact significance criterion, Table 5.0-19 shows the total VMT generation under existing conditions, with the proposed General Plan, and with Alternative D. As indicated by footnote 4 in this table, this total VMT calculation considers the full length of travel generated by all land uses in the planning area. It shows an expected 150 percent increase in total VMT generation. The reasonableness of this increase can be evaluated by comparing increases in land use. As shown in Table 5.0-18, residential is expected to increase by 135 percent, restaurant/retail is expected to increase by 212 percent, industrial is expected to increase by 227 percent, and office is expected to increase by 352 percent. The 150 percent increase in VMT, which includes travel both inside and outside the planning area consistent with the “Technical Advisory”, falls within that range. VMT within the study area will

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increase slightly more slowly, 136 percent. It is also noted that the proposed roadway improvements within the planning area would result in a 31 percent increase in lane-miles.

Table 5.0-20 compares the VMT per dwelling unit and VMT per employee associated with Alternative D implementation with the threshold. As shown in the table, Alternative D would exceed VMT thresholds. While Alternative D is not expected to result in VMT per dwelling unit exceeding 85 percent of baseline for residential-related land uses, Alternative D is expected to result in VMT per employee exceeding 85 percent of baseline for employment-related land uses.

TABLE 5.0-20: VMT ANALYSIS

<i>LAND USE</i>	<i>UNITS</i>	<i>THRESHOLD</i>	<i>ALTERNATIVE D¹</i>
Single family	VMT per dwelling unit	88.2	75.5
Multi family	VMT per dwelling unit	66.8	57.2
Age restricted	VMT per dwelling unit	37.5	28.5
Restaurant	VMT per employee	158.1	229.3
Industrial	VMT per employee	64.0	75
Office	VMT per employee	27.5	43.1
Retail	VMT per employee	101.1	211.9

NOTES: ¹**BOLD** = EXCEEDS THRESHOLD

²VMT PER EMPLOYEE RATIOS INCLUDE ALL TRIPS BY EMPLOYEES, CUSTOMERS, AND DELIVERIES.

SOURCE: FEHR & PEERS, 2022

This result is due to the change in the balance between jobs and housing in Manteca, which is based upon the large increases in employment shown in Table 5.0-18. In the future, fewer residents are expected to leave the City for employment, reducing VMT per dwelling unit, but more employees and customers are expected to travel to employment centers, increasing VMT per employee. If such employment growth does not occur, actual VMT per dwelling unit could be higher, and VMT per employee could be lower, than estimated for Alternative D buildout conditions.

As shown in Table 5.0-20, Alternative D would result in VMT increases that exceed the threshold for employment-related land uses. Therefore, this impact is **significant**. As previously described, this result is due to the change in the balance between jobs and housing in Manteca, which is based upon the large increases in employment shown in Table 5.0-18. In the future, more employees and customers are expected to travel to employment centers, increasing VMT per employee.

The updated General Plan includes policies designed to reduce vehicle travel and vehicle miles traveled. The Circulation Element addresses providing adequate pedestrian, bicycle, and transit facilities and opportunities, promoting non-vehicle travel modes, requiring employers with 50 or more employees to implement TDM programs, and ensuring regional coordination on trip and VMT reduction efforts. Alternative D policies and actions that contribute to VMT reductions are identified below.

Alternative D Policies and Actions That Minimize Potential Impacts*Policies*

C-2.1 *Promote development of a future roadway system as shown in the Major Streets Master Plan, Figure CI-1, with streets designed in accordance with the City's standard plans to provide multiple, direct, and convenient routes for all modes and to provide high-volume, multi-lane facilities with access controls, as needed, to preserve the through traffic carrying capacity of the facility.*

C-2.4 *Design street improvements to provide multiple, direct, and convenient routes for all modes.*

C-6.3 *Support regional freight planning efforts including regional improvement of logically networked STAA truck routes Roth Road, SR 99 Frontage Roads, and French Camp Road that avoids impacts to existing City residents.*

C-7.1 *Encourage employers to provide alternative mode subsidies, bicycle facilities, alternative work schedules, ridesharing, telecommuting, and work-at-home programs employee education and preferential parking for carpools/vanpools.*

C-7.2 *Require development projects that accommodate or employ 50 or more full-time equivalent employees to establish transportation demand management (TDM) programs.*

C-7.3 *Partner with SJCOG on the Dibs program, which is the regional smart travel program, including rideshare, transit, walking, and biking, operated by SJCOG.*

C-7.4 *Require proposed development projects that could have a potentially significant VMT impact to consider reasonable and feasible project modifications and other measures during the project design and environmental review stage of project development that would reduce VMT effects in a manner consistent with state guidance on VMT reduction.*

C-7.5 *Evaluate the feasibility of a local or regional VMT impact fee program, bank, or exchange. Such an offset program, if determined feasible, would be administered by the City or a City-approved agency, and would offer demonstrated VMT reduction strategies through transportation demand management programs, impact fee programs, mitigation banks or exchange programs, in-lieu fee programs, or other land use project conditions that reduce VMT in a manner consistent with state guidance on VMT reduction. If, through on-site changes, a subject project cannot eliminate VMT impacts, the project could contribute on a pro-rata basis to a local or regional VMT reduction bank or exchange, as necessary, to reduce net VMT impacts.*

C-7.6 *Expand alternatives to driving by increasing opportunities to walk, bike, and use transit.*

Circulation Element Actions

C-2b *When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for more safe travel by all modes that use streets, including autos, transit, pedestrians, and bicycles. Complete streets shall be developed in a context-sensitive*

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manner. For example, it may be more appropriate to provide a Class I bike path instead of bike lanes along a major arterial. Pedestrian districts like Downtown Manteca or areas near school entrances should have an enhanced streetscape (e.g., narrower travel lanes, landscape buffers with street trees, etc.) to better accommodate and encourage pedestrian travel.

C-2f Ensure that bicycle and pedestrian access is both provided and prioritized through walls and berms to minimize travel distances and increase the viability walking and bicycling.

C-2g To support the City's goals of reducing VMT, minimizing maintenance costs, and encouraging active transportation, any new or substantially modified roadway shall be as narrow as feasible while being consistent with LOS standards, goods movement policies, and safety best practices. In general, this implementation measure can be achieved by constructing narrower traffic lanes, although wider lanes may be necessary on certain truck routes.

C-4a Periodically update the Active Transportation Plan through a process inclusive of community members and stakeholders to include all areas envisioned for development by this General Plan and to address pedestrian and bicycle facilities needed to provide a complete circulation system that adequately meets the needs of pedestrians and bicyclists.

C-5a Periodically review transit needs in the city through a process inclusive of community members and stakeholders and adjust bus routes to accommodate changing land use and transit demand patterns. The City shall also periodically coordinate with the San Joaquin Regional Transit District to assess the demand for regional transit services.

C-5b Explore a transit connections study that would identify improvements to connections and access to the existing ACE station, the Manteca Transit Center, and future planned transit stations.

C-7a Provide information about transit services, ridesharing, vanpools, and other transportation alternatives to single occupancy vehicles at City Hall, the library, on the City website, and through other channels.

C-7b Develop TDM program requirements with consideration of addressing CEQA vehicle miles traveled impact analysis requirements (i.e., SB 743) in accordance with implementation measure C-1c. TDM programs shall include measures to reduce total vehicle miles traveled and peak hour vehicle trips. A simplified version of the Air District's Rule 9410 could be used to implement this measure.

C-7c Coordinate with the San Joaquin Council of Governments on a Congestion/Mobility Management Program to identify TDM strategies to reduce VMT and mitigate peak-hour congestion impacts. Strategies may include: growth management and activity center strategies, telecommuting, increasing transit service frequency and speed, transit information systems, subsidized and discount transit programs, alternative work hours, carpooling, vanpooling, guaranteed ride home program, parking management, addition of general purpose lanes, channelization, computerized signal systems, intersection or midblock widenings, and Intelligent Transportation Systems.

C-7d Proposed development projects should consider the list of potential measures below. This list is not intended to be exhaustive, and not all measures may be feasible, reasonable, or applicable to all projects. The purpose of this list is to identify options for future development proposals, not to constrain projects to this list, or to require that a project examine or include all measures from this list. Potential measures, with possible ranges of VMT reduction for a project, include:*

- Increase density of development (up to 10.75 percent)
- Increase diversity of land uses (up to 12 percent)
- Encourage telecommuting and alternative work schedules (up to 4.5 percent)
- Implement car-sharing programs (up to 5 percent)
- Implement parking management and pricing (up to 0.7 percent)
- Implement subsidized or discounted transit program (up to 3 percent)
- Implement commute trip reduction marketing and launch targeted behavioral interventions (up to 3 percent)

*Note: VMT reduction ranges based on *Quantifying Greenhouse Gas Mitigation Measures, California Air Pollution Control Officers Association (2010)* and new research compiled by *Fehr & Peers (2020)*. Additional engineering analysis is required prior to applying reductions to specific projects. Actual reductions will vary by project and project context.

C-7e Partner with SJCOG, San Joaquin County, and neighboring cities to evaluate a potential regional VMT impact fee program, bank, or exchange.

C-7f Implement the Active Transportation Plan and other Bikeway and Pedestrian Systems goals and policies (C-4).

C-7g Expand transit service and increase transit frequency and implement Public Transit goals and policies (C-5).

Resource Conservation Element Policies

RC-5.1 Ensure that land use and circulation improvements are coordinated to reduce the number and length of vehicle trips.

RC-6.1 Coordinate with the San Joaquin Valley Air Pollution Control District (Air District), San Joaquin Council of Governments, and the California Air Resources Board (State Air Board), and other agencies to develop and implement regional and county plans, programs, and mitigation measures that address cross-jurisdictional and regional air quality impacts, including land use, transportation, and climate change impacts, and incorporate the relevant provisions of those plans into City planning and project review procedures. Also cooperate with the Air District, SJCOG, and State Air Board in:

- Enforcing the provisions of the California and Federal Clean Air Acts, state and regional policies, and established standards for air quality.
- Identifying baseline air pollutant and greenhouse gas emissions.
- Encouraging economy clean fuel for city vehicle fleets, when feasible.

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- *Developing consistent procedures for evaluating and mitigating project-specific and cumulative air quality impacts of projects.*

Resource Conservation Element Actions

RC-6b *Review development, land use, transportation, and other projects that are subject to CEQA for potentially significant climate change and air quality impacts, including toxic and hazardous emissions and require that projects provide adequate, appropriate, and cost-effective mitigation measures reduce significant and potentially significant impacts. This includes, but is not limited to, the following:*

- *Use of the Air District “Guide for Assessing and Mitigating Air Quality Impacts”, as may be amended or replaced from time to time, in identifying thresholds, evaluating potential project and cumulative impacts, and determining appropriate mitigation measures;*
- *Contact the Air District for comment regarding potential impacts and mitigation measures as part of the evaluation of air quality effects of discretionary projects that are subject to CEQA;*
- *Require projects to participate in regional air quality mitigation strategies, including Air District-required regulations, as well as recommended best management practices when applicable and appropriate;*
- *Promote the use of new and replacement fuel storage tanks at refueling stations that are clean fuel compatible, if technically and economically feasible;*
- *The use of energy efficient lighting (including controls) and process systems beyond Title 24 requirements shall be encouraged where practicable (e.g., water heating, furnaces, boiler units, etc.);*
- *The use of energy efficient automated controls for air conditioning beyond Title 24 requirements shall be encouraged where practicable; and*
- *Promote solar access through building siting to maximize natural heating and cooling, and landscaping to aid passive cooling and to protect from winds;*
- *The developer of a sensitive air pollution receptor shall submit documentation that the project design includes appropriate buffering (e.g., setbacks, landscaping) to separate the use from highways, arterial streets, hazardous material locations and other sources of air pollution or odor;*
- *Identify sources of toxic air emissions and, if appropriate, require preparation of a health risk assessment in accordance with Air District-recommended procedures; and*
- *Circulate the environmental documents for projects with significant air quality impacts to the Air District for review and comment.*

RC-6d *Maintain adequate data to analyze cumulative land use impacts on air quality and climate change. This includes tracking proposed, planned, and approved General Plan amendments, development, and land use decisions so that projects can be evaluated for cumulative air quality impacts, including impacts associated with transportation and land use decisions.*

CONCLUSION

The VMT generated by buildout of Alternative D would exceed the VMT threshold of 85 percent of baseline. Implementing the proposed General Plan policies and actions will help to reduce VMT through encouraging non-vehicle transportation modes, expanded transit services, and developing TDM program requirements including measures to reduce VMT associated with new development. The City will also use this EIR and CEQA Section 15183 to streamline VMT analysis for projects consistent with the updated General Plan. However, reductions in VMT per employee from 15 to 51 percent would be required to achieve thresholds as shown in Table 5.0-20. Additionally, the feasibility and effectiveness of a local or regional VMT impact bank or exchange is unknown at this time. The City cannot demonstrate definitively at this time that implementation of these policies would achieve VMT reductions to meet the VMT per employee thresholds. This impact is **significant**.

The General Plan goals, policies, and implementation measures listed above will achieve meaningful reductions in VMT generated by land uses within the City. However, reductions in VMT per employee from 15 to 51 percent would be required to achieve thresholds as shown XX3. The City at this time cannot demonstrate that VMT will be reduced to the degree that it meets these thresholds. Although large changes in Alternative D land use could potentially reduce VMT of the City further, those changes would also affect the achievement of other goals the City seeks to achieve with the General Plan. VMT reduction also depends on factors such as demographic change, household preferences for housing types and locations, the cost of fuel, and the competitiveness of regional transit relative to driving, which relates to congestion along vehicular commute routes that are not under the City's jurisdiction, as well as transit provided by agencies other than the City. The feasibility and effectiveness of a local or regional VMT impact bank or exchange is unknown at this time. Therefore, this impact is considered **significant and unavoidable**.

When compared to the proposed project, impacts related to VMT are slightly reduced under Alternative D. At full buildout, the proposed General Plan would result in a total VMT increase of 164% compared to the existing condition baseline, while Alternative D would result in a total VMT increase of 150% compared to the existing condition baseline.

IMPACT 3.14-2: ALTERNATIVE D IMPLEMENTATION MAY CONFLICT WITH A PROGRAM, PLAN, POLICY OR ORDINANCE ADDRESSING THE CIRCULATION SYSTEM, INCLUDING TRANSIT, BICYCLE, AND PEDESTRIAN FACILITIES (SIGNIFICANT AND UNAVOIDABLE)

Implementation of Alternative D could lead to increases in the city's population and employment that would increase the demand for pedestrian and bicycle facilities and transit facilities and services.

The City adopted an ATP that establishes the City's goals and objectives for pedestrian and bicycle travel. The ATP establishes standards for bicycle and pedestrian facilities and identifies planned bicycle and pedestrian network facilities to address the City's bicycle and pedestrian needs. The Circulation Element developed as part of the proposed General Plan contains Policies C-4.1, C-4.5,

and C.4-9 which support bicycle and pedestrian routes and facilities that are consistent with the Active Transportation Plan. The proposed General Plan contains additional policies and implementing actions that support access to and the performance of transit, bicycle, and pedestrian facilities. These applicable policies and implementing actions are listed below. Further, the Plan includes mixed-use development that is supportive of non-automotive modes. The proposed General Plan includes policies and actions that support implementation of applicable bicycle and pedestrian plans and ensure new transportation infrastructure includes adequate bicycle and pedestrian facilities.

The City's PFIP is also developed and periodically updated to provide funding for local roadway expansion and improvements, which include bicycle and pedestrian facilities.

While there are no established standards regarding transit levels of service that have been adopted by the City or transit agencies, including offered by Manteca Transit or the San Joaquin Regional Transit District, the proposed General Plan Policy C-5.1 states, "Encourage and plan for the expansion of regional bus service in the Manteca area." Policy C-5.11 also states, "As new areas and neighborhoods of the City are developed, fund transit and paratransit expansion (including capital, operations, and maintenance) to provide service levels consistent with existing development and increase service to support increasing demand across the system." The General Plan includes implementation actions to plan for transit services, including reviewing transit needs and adjusting bus routes to serve changing land use and transit demand patterns, to identify improvements to increase access to local transit centers and stations, to work with the school districts to identify opportunities for shared transit systems, and to review and update the City's funding programs to ensure that adequate transit services are provided.

The General Plan Update includes policies and actions that help make the circulation system, including transit, bicycle, and pedestrian facilities, consistent with applicable programs, plans, policies, and ordinances and address the needs of growth accommodated by Alternative D.

Alternative D Policies and Actions That Minimize Potential Impacts

Policies

C-4.1 Through regular updates to the City's Active Transportation Plan, establish a safe and convenient network of identified bicycle and pedestrian routes connecting residential areas with schools, recreation, shopping, and employment areas within the city, generally as shown in Figure CI-2. The City shall also strive to develop connections with existing and planned regional routes shown in the San Joaquin County Bicycle Master Plan.

C-4.2 Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians by providing native and drought-tolerant shade trees and controlling traffic speeds by implementing narrow lanes or other traffic calming measures in accordance with the City Neighborhood Traffic Calming Program on appropriate streets, in particular residential and downtown areas.

C-4.3 Provide a sidewalk and bicycle route system that serves all pedestrian and bicycle users and meets the latest guidelines related to the Americans with Disabilities Act (ADA).

C-4.4 Provide bicycle parking facilities at commercial, business/professional and light industrial uses in accordance with Part 11 of the California Building Standards Code.

C-4.5 Expand the existing network of off-street bicycle facilities as shown in the City's Active Transportation Plan to accommodate cyclists who prefer to travel on dedicated trails. Further, the City shall strive to develop: 1) a "city-loop" Class I bike path for use by both bicyclists and pedestrians that links Austin Road, Atherton Drive, Airport Way, and a route along or near Lathrop Road to the Tidewater bike path and its existing and planned extensions, and 2) an off-street bicycle trail extension between the Tidewater Bike Trail near the intersection of Moffat Boulevard and Industrial Park Drive to the proposed regional route between Manteca and Ripon.

C-4.6 Provide on-street Class II bike lanes, Class IV protected bike lanes, or off-street Class I bike paths along major collector and arterial streets whenever feasible.

C-4.7 Facilitate bicycle travel through residential streets through signage necessary to communicate the presence of Class III bicycle routes on residential streets that have sufficiently low volumes as to not require bike lanes or have narrower street cross sections that assist in calming traffic.

C-4.8 Provide sidewalks and/or walkways connecting to the residential neighborhoods, primary public destinations, major public parking areas, transit stops, and intersections with the bikeway system.

C-4.9 Provide sidewalks along both sides of all new streets in the City.

C-5.1 Encourage and plan for the expansion of regional bus service in the Manteca area.

C-5.2 Promote increased commuter and regional passenger rail service that will benefit the businesses and residents of Manteca. Examples include Amtrak, the Altamont Commuter Express (ACE), and high-speed rail.

C-5.3 Identify and implement means of enhancing the opportunities for residents to commute from residential neighborhoods to the ACE station or other transit facilities that may develop in the City.

C-5.4 Include primary locations where the transit systems will connect to the major bikeways and pedestrian ways and primary public parking areas in the Active Transportation Plan (see C-4a).

C-5.5 Encourage programs that provide ridesharing and vanpool opportunities and other alternative modes of transportation for Manteca residents.

C-5.6 Promote the development of park-and-ride facilities near I-5, SR 120, SR 99, and transit stations.

C-5.7 Maintain a working relationship between the City administration and the local management of the Union Pacific Railroad regarding expansion of freight and passenger rail service and economic development of the region.

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C-5.8 Design future roadways to accommodate transit facilities, as appropriate. These design elements should include installation of transit stops adjacent to intersections and provision of bus turnouts and sheltered stops, where feasible.

C-5.9 Encourage land uses and site developments that promote public transit along fixed route public transportation corridors, with priority given to those projects that will bring the greatest increase in transit ridership.

C-5.10 Ensure that development projects provide adequate facilities to accommodate school buses, including loading and turn-out locations in multifamily and other projects that include medium and high density residential uses, and that the school districts are provided an opportunity to address specific needs associated with school busing.

C-5.11 As new areas and neighborhoods of the City are developed, fund transit and paratransit expansion (including capital, operations, and maintenance) to provide service levels consistent with existing development and increase service to support increasing demand across the system.

Actions

C-2b When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for more safe travel by all modes that use streets, including autos, transit, pedestrians, and bicycles. Complete streets shall be developed in a context-sensitive manner. For example, it may be more appropriate to provide a Class I bike path instead of bike lanes along a major arterial. Pedestrian districts like Downtown Manteca or areas near school entrances should have an enhanced streetscape (e.g., narrower travel lanes, landscape buffers with street trees, etc.) to better accommodate and encourage pedestrian travel.

C-2c Review and update the City's standard plans to ensure that the plans reflect the City's goals and policies for the circulation system, including cross-sections that provide for landscape-separated sidewalks along arterials and non-residential streets, best practices for safer travel by vehicles, bicycles, and pedestrians, and accommodate all users.

C-2f Ensure that bicycle and pedestrian access is both provided through walls and berms to minimize travel distances and increase the viability walking and bicycling.

C-2i Pursue funding to improve and address areas of traffic, bicycle, and pedestrian hazards and conflicts with vehicular traffic movements.

C-4a Periodically update the Active Transportation Plan through a process inclusive of community members and stakeholders to include all areas envisioned for development by this General Plan and to address pedestrian and bicycle facilities needed to provide a complete circulation system that adequately meets the needs of pedestrians and bicyclists.

C-4b Utilize the standards set forth in the latest editions of the California MUTCD and American Association of State Highway and Transportation Officials (AASHTO) Green Book for improvement and re-striping of appropriate major collector and arterial streets to accommodate Class II bike lanes or Class IV protected bikeways in both directions, where sufficient roadway width is available. This may include narrowing of travel lanes.

C-4c Increase bicyclist and pedestrian safety by:

- *Providing and maintaining bicycle paths and lanes that promote bicycle travel.*
- *Sweeping, repairing, and maintaining vegetation along bicycle lanes and paths on a continuing, regular basis.*
- *Ensuring that bikeways are delineated and signed in accordance with the latest editions of the California MUTCD and AASHTO standards and lighting is provided, where feasible.*
- *Ensuring that all new and improved streets have bicycle-safe drainage grates and eliminate uneven pavement, gravel, encroaching vegetation, and other conditions that may impede user safety, expectations, and convenience.*
- *Providing and maintaining sidewalks and crosswalks*

C-4d Add bicycle facilities whenever possible in conjunction with road rehabilitation, reconstruction, or re-striping projects.

C-5a Periodically review transit needs in the city through a process inclusive of community members and stakeholders and adjust bus routes to accommodate changing land use and transit demand patterns. The City shall also periodically coordinate with the San Joaquin Regional Transit District to assess the demand for regional transit services.

C-5b Explore a transit connections study that would identify improvements to connections and access to the existing ACE station, the Manteca Transit Center, and future planned transit stations.

C-5d Review and consider alternatives to conventional bus systems, such as smaller shuttle buses (i.e. micro-transit), on-demand transit services, or transportation networking company services that connect neighborhood centers to local activity centers with greater cost efficiency.

C-5h Review and update the City's funding programs to provide for adequate transit services, including funding for capital, operations, and maintenance, commensurate with growth of the City.

C-7a Provide information about transit services, ridesharing, vanpools, and other transportation alternatives to single occupancy vehicles at City Hall, the library, and on the City website.

CONCLUSION

Although the General Plan Update policies and actions listed above and in Impact 3.14-3 help make the circulation system, including transit, bicycle, and pedestrian facilities, consistent with applicable programs, plans, policies, and ordinances and address the needs of growth accommodated by Alternative D, increasing vehicle traffic may increase the number of collisions on Manteca roadways, including collisions involving transit users, bicyclists, and pedestrians. The City cannot demonstrate definitively at this time that implementation of these policies would maintain the number of collisions for vehicles, pedestrians, and bicyclists at current or lower levels. Therefore, Alternative D may conflict with policies for safe travel, including by transit users, bicyclists, and pedestrians. These policies include C-1, C-1.1, C-2 including Table C-1, and C-4. This impact is **significant**.

The General Plan goals, policies, and implementation measures listed above and in Impact 3.14-3 may achieve meaningful reductions in collisions within the City. The City at this time cannot

5.0 ALTERNATIVES

demonstrate that collisions will be reduced to the degree that it meets these thresholds. Collision reduction also depends on factors such as user behavior, demographic change, household preferences for travel, the cost of fuel, and the competitiveness of other transportation modes relative to driving. Therefore, this impact is considered ***significant and unavoidable***. This impact would be similar when compared to the proposed project.

IMPACT 3.14-3: ALTERNATIVE D IMPLEMENTATION MAY INCREASE HAZARDS DUE TO A DESIGN FEATURE, INCOMPATIBLE USES, OR INADEQUATE EMERGENCY ACCESS (SIGNIFICANT AND UNAVOIDABLE)

Implementation of Alternative D would result in increased development, which would result in new roadways and would increase the number of users on the city's transportation system. However, the number of lane miles in the City is expected to increase at a lower rate than VMT as described in Appendix A. As shown in Appendix A, at General Plan buildout ADT would increase on all but one of 44 studied roadway segments within the City, and level of service would worsen on 28 of 44 segments. For example, ADT is estimated to increase at the following locations as shown below:

- Yosemite Avenue west of El Rancho Drive: 54,400
- Lathrop Avenue west of Airport Way: 44,500
- Lathrop Avenue west of Madison Grove Drive: 36,300
- Union Road south of SR 120: 36,100
- Main Street south of Quintal Road: 35,900

There will be a need to ensure that hazards are not increased and that adequate emergency access provisions are made to accommodate increased population and growth. As roadways are widened to accommodate increased ADT, accommodations will need to be made for all modes of travel, as part of the PFIP and other programs.

It is noted that the Plan is a programmatic-level document, and hazards are typically assessed at the project-level. Potential associated with future development projects would be analyzed and evaluated in detail through the environmental review process. The City's design and construction standards and specifications provide for coordinated and standardized development of City facilities, including roadways. The standards apply to, regulate, and guide the design and preparation of plans, and the construction of streets, highways, alleys, drainage, traffic signals, site access, and related public improvements.

Additionally, the Highway Safety Manual (American Association of State Highway and Transportation Officials, 2010) shows that fatal and injury crash frequencies generally decrease with decreasing speed. Thus, as congestion increases and vehicle speed decreases, collision rates may decrease. However, there will be periods when the roads are not congested. Additionally, this relationship cannot be shown to hold true under all conditions, and total collisions may increase. Similarly, collisions involving pedestrians and bicyclists may increase. Thus, new development will increase the number of vehicles on the roadway network, and the number of collisions in the City may increase for all modes.

Collisions involving trucks may also increase. Industrial employment is estimated to increase 297 percent under Alternative D conditions as compared to the existing conditions. With the increase in industrial growth, about 31,300 daily truck trips are expected to be generated. Most industrial development will be further from downtown, which extends from the intersection of Yosemite Avenue and Main Street; the average distance of industrial employment from this intersection is expected to increase from about 2.3 to 3.2 miles, which may help reduce the incidence of collisions with pedestrians and bicyclists.

Approximately one annual injury collision and 0.15 annual killed or serious injury collision per thousand daily truck trips were estimated to be generated in the City under the existing (2019 baseline) condition as described in the Circulation chapter Environmental Setting section. Using a constant collision rate per trip, approximately 30 annual injury collisions and 4.8 annual killed or serious injury collisions per thousand daily truck trips are estimated to be generated in the City under Alternative D buildout conditions.

Furthermore, new development will increase traffic at at-grade rail crossings, potentially increasing collisions, and funds have not been identified to implement grade separations. Additionally, the increased level of traffic and delays may increase emergency response times. New development will also result in more people living and working at greater distance from existing fire and police facilities, with potentially longer response times.

The Circulation Element developed as part of the proposed Alternative D General Plan contains policies and actions in support of safe circulation by all modes, including requirements that roadways are designed consistent with City standards, designed to provide adequate emergency access and address safety concerns. The Alternative D Circulation Element includes policies to pursue funding for grade separation. It also includes policies to create a Vision Zero or Local Roadway Safety plan and to update the PFIP Program to include safety improvements for all modes and funding for grade-separated crossings at existing roadways. These applicable policies are listed below.

Alternative D Policies and Actions That That Minimize Potential Impacts

Policies

C-1.1 Strive to balance levels of service (LOS) for all modes (vehicle, transit, bicycle, and pedestrian) to maintain a high level of access and mobility, while developing a safe, complete, and efficient circulation system. The impact of new development and land use proposals on VMT, LOS and accessibility for all modes should be considered in the review process.

C-2.3 Require new development to pay a fair share of the costs of street and other transportation improvements based on impacts in conformance with the goals and policies established in this Circulation Element and the Public Facilities Implementation Program (PFIP).

C-2.5 Include sound attenuation walls in the frontage improvements associated with Arterial roadways in accordance with City adopted Street Standards and Specifications, as amended.

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C-2.6 *Align residential and collector street intersections with collector and arterial streets with other residential and collector streets, where feasible, to maintain a high degree of connectivity between neighborhoods, minimize circuitous travel, and to allow bicyclists and pedestrians to travel more conveniently and more safely from one neighborhood to another without using major streets.*

C-2.7 *Provide access for bicycles and pedestrians at the ends of cul-de-sacs, where right-of-way is available, to provide convenient access within and between neighborhoods and to encourage walking and bicycling to neighborhood destinations.*

C-2.8 *Signals, roundabouts, traffic circles and other traffic management, calming, and safety techniques shall be applied appropriately at residential and collector street intersections with collector and arterial streets in order to allow bicyclists and pedestrians to travel more conveniently and more safely from one neighborhood to another.*

C-2.9 *Where traffic congestion, pedestrian travel, collision history, or other factors warrant the installation of a traffic signal, the feasibility of a roundabout shall also be evaluated on a whole life cycle cost basis. In general, a roundabout should be installed at these locations unless right of way, cost, operational concerns, design limitations, or other issues preclude the installation of a roundabout.*

C-2.10 *Development of private streets may be allowed in new residential projects that demonstrate the ability to facilitate police patrol, emergency access, and solid waste collection as well as fund on-going maintenance.*

C-2.11 *Promote infill development that closes gaps and bottlenecks in the circulation system, especially in disadvantaged and older neighborhoods.*

C-2.12 *Require new development to establish joint-use driveways and/or cross access easements to provide access when feasible and/or if: 1) located on street segments identified in C-1.2, 2) located on streets with intersections approaching not meeting LOS D, or 3) the shared access will reduce vehicle miles traveled as determined by the City's Community Development Department. The requirement is intended to preserve the movement function of the major thoroughfare system by requiring development of parallel roads or cross access easements to connect developments as they are permitted along major roads, providing more efficient connections to destinations, and reducing air emissions.*

C-2.13 *Require development projects to arrange streets in an interconnected block pattern, so that pedestrians, bicyclists, and drivers are not forced onto arterial streets for inter- or intra-neighborhood travel. This approach will also add redundancy to the street network, supporting more safe and more efficient movement of emergency responders and help reduce vehicle miles traveled within the community. The street pattern shall include measures to provide a high level of connectivity and decrease vehicle miles traveled.*

C-2.14 *Residential subdivisions with lots fronting on an existing arterial street shall provide for separate roadway access for vehicles, pedestrians, and bicyclists to the maximum extent feasible,*

with access to residential lots provided from residential or collector streets. For those properties that currently front arterial streets, consideration should be given to providing separate roadway access where feasible as a condition of approval for any redevelopment or subdivision of the property.

C-2.15 Ensure that development and infrastructure projects are designed in a way that provides pedestrian and bicycle connectivity to adjacent neighborhoods and areas (such as ensuring that sound walls, berms, and similar physical barriers are considered and gaps or other measures are provided to ensure connectivity).

C-2.16 Aggressively pursue state and federal funding to augment the PFIP and implement the City's Circulation Element.

C-2.17 Coordinate with neighboring jurisdictions, including Caltrans, San Joaquin Council of Governments (SJCOG), San Joaquin County, the City of Lathrop, and the City of Ripon to pursue funding for the following regional facilities:

- A new interchange at McKinley Avenue and SR 120;*
- A new interchange at Austin Road/Raymus Parkway and SR 99;*
- A new interchange on SR 99 between Lathrop Road and French Camp Road;*
- An easterly extension of the SR 120 freeway towards Oakdale;*
- Grade separated crossings of the Union Pacific Railroad line at Roth Road, Louise Avenue, Yosemite Avenue, and McKinley Avenue; and*
- Regional bicycle lanes and bicycle paths.*

C-2.18 Prohibit the creation of traffic, bicycle, and pedestrian hazards and conflicts with vehicular traffic movements in new development, infill development, and redevelopment areas and pursue opportunities to improve conditions where there are existing conflicts to ensure that the pedestrian and bicycle network provides a direct and convenient route equal to or greater than vehicular routes in new development, infill, and redevelopment areas.

C-2.19 In the development of new projects, give special attention to maintaining/ensuring adequate corner-sight distances appropriate for the speed and type of facility, including intersections of city streets and private access drives and roadways.

C-2.20 Encourage the development of landscape-separated sidewalks along roadways (particularly arterials and non-residential streets) when feasible to discourage pedestrian/vehicle conflicts and be consistent with complete streets concepts.

C-2.21 Pursue funding for grade separation of the remaining at-grade railroad crossings within the City.

C-2.22 Incorporate mountable medians, shoulders to bypass queued vehicles, emergency signal preemption, and other features to improve emergency response times as appropriate and feasible on new roadways and on existing roadways.

5.0 ALTERNATIVES

C-2.23 Construct new facilities for emergency services as new areas of the City are developed to maintain response time consistent with existing development.

C-4.1 Through regular updates to the City's Active Transportation Plan, establish a safe and convenient network of identified bicycle and pedestrian routes connecting residential areas with schools, recreation, shopping, and employment areas within the city, generally as shown in Figure CI-2. The City shall also strive to develop connections with existing and planned regional routes shown in the San Joaquin County Bicycle Master Plan.

C-4.2 Improve safety conditions, efficiency, and comfort for bicyclists and pedestrians by providing native and drought-tolerant shade trees and controlling traffic speeds by implementing narrow lanes or other traffic calming measures in accordance with the City Neighborhood Traffic Calming Program on appropriate streets, in particular residential and downtown areas.

C-6.5 Consider implementing vehicle weight limit restrictions on roadways near sensitive uses like schools and residential neighborhoods to discourage cut-through truck traffic.

Actions

C-2a Maintain the Major Street Master Plan (Figure CI-1) showing the existing and proposed ultimate right-of-way and street width for each road segment within the City's Sphere of Influence and Area of Interest. The Major Street Master Plan shall also indicate the necessary right-of-way to be acquired or dedicated and the expected method of financing roadway improvements (i.e., City-funded or property owner/developer-funded). The Major Street Master Plan shall be regularly updated.

C-2b When planning roadway facilities, incorporate the concept of complete streets. Complete streets include design elements for more safe travel by all modes that use streets, including autos, transit, pedestrians, and bicycles. Complete streets shall be developed in a context-sensitive manner. For example, it may be more appropriate to provide a Class I bike path instead of bike lanes along a major arterial. Pedestrian districts like Downtown Manteca or areas near school entrances should have an enhanced streetscape (e.g., narrower travel lanes, landscape buffers with street trees, etc.) to better accommodate and encourage pedestrian travel.

C-2c Review and update the City's standard plans to ensure that the plans reflect the City's goals and policies for the circulation system, including cross-sections that provide for landscape-separated sidewalks along arterials and non-residential streets; best practices for more safe travel by vehicles, bicycles, and pedestrians; and accommodate all users.

C-2d Require new development to participate in the implementation of transportation improvements identified in the Major Street Master Plan. Participation shall include the construction of roadways, improvements to roadways, payment into the PFIP program, payment into other fee programs, or fair-share payments. In general, the infrastructure needs and methods of participation will be determined through an environmental impact report or transportation impact analysis.

C-4j Consider adoption of a Vision Zero Action Plan (or strategy) that prioritizes systems-based approach to preventing traffic fatalities, focusing on the built environment, systems, and policies that influence behavior as well as messaging that emphasizes that these traffic losses are preventable.

CONCLUSION

Although the General Plan policies and actions related to circulation, hazards, and emergency access would reduce the impacts to emergency circulation and access associated with implementation of Alternative D, increasing vehicle traffic may increase the number of collisions on Manteca roadways, and therefore result in an increase in hazards. The City cannot demonstrate definitively at this time that implementation of these policies would maintain the number of collisions for vehicles, pedestrians, and bicyclists at current or lower levels. This impact is **significant**.

The General Plan goals, policies, and implementation measures listed above may achieve meaningful reductions in collisions within the City. The City at this time cannot demonstrate that collisions will be reduced to the degree that it meets this threshold. Collision reduction also depends on factors such as user behavior, demographic change, household preferences for travel, the cost of fuel, and the competitiveness of other transportation modes relative to driving. Therefore, this impact is considered **significant and unavoidable**. However, when compared to the proposed project, this impact is slightly reduced due to less of an increase in total vehicle trips and total truck trips, which reduces the potential for collisions and injuries in the City. It is further noted that Alternative D does not include policies as revised in the proposed General Plan that would reduce collisions, including Policy C-2k, C-2n, and C-2o.

Utilities and Service Systems

IMPACT 3.15-1: ALTERNATIVE D IMPLEMENTATION WOULD RESULT IN SUFFICIENT WATER SUPPLIES AVAILABLE TO SERVE THE CITY AND REASONABLY FORESEEABLE FUTURE DEVELOPMENT DURING NORMAL, DRY, AND MULTIPLE DRY YEARS (LESS THAN SIGNIFICANT)

Implementation of both the General Plan and Alternative D would result in increased population and employment growth within the Planning Area, and a corresponding increase in the demand for additional water supplies.

West Yost projected water demand associated with the proposed General Plan in the City of Manteca General Plan Update Water Supply Report memo dated February 22, 2021. The water demand factors used for the proposed General Plan were used to estimate the water demand for Alternative D. The projected potable and raw water demand at buildout of the General Plan is 36,118 AFY (16,253 AFY existing plus 19,865 AFY projected).

West Yost projected water demand associated with Alternative D in the City of Manteca General Plan Update Water Supply Report memo dated February 3, 2022. Table 5.0-21 presents the projected additional water demand at buildout of Alternative D in AFY. It was assumed that agricultural land uses would not be irrigated with City water supplies. Also, some proposed land

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uses (e.g., Business Professional, Commercial, and Downtown) did not match exactly with the water use factors (WUFs) land uses. In those cases, water use was assumed to align with similar land uses. The City’s potable and raw water demand in 2020 was approximately 16,253 acre-feet (AF), which was greater than expected. While this may have been caused by abnormally high daytime population due to stay-at-home orders and mandated closure of non-essential businesses in response to the COVID-19 pandemic, it represents a conservative baseline for future demand projections. Therefore, the increase in water demand associated with buildout of the General Plan is projected to be 17,971 AFY. This results in a total estimated water use of 31,203 AFY, based on the existing demand of 13,232 AFY plus additional demand at buildout of 17,971 AFY. The future water demand for Alternative D is approximately 1,894 AFY lower than the proposed General Plan.

The City’s water supplies consist of surface water deliveries from SSJID and groundwater pumped from the Eastern San Joaquin Subbasin. Since the City is still preparing its 2020 UWMP, the City’s projected surface water and groundwater supplies are based on SSJID’s 2020 UWMP and the ESJGS-GSP, respectively. Projected surface water and groundwater supplies at buildout of Alternative D are summarized below.

TABLE 5.0-21: PROJECTED WATER DEMAND OF FUTURE LAND USES AT BUILDOUT OF ALTERNATIVE D

<i>PROPOSED LAND USE</i>	<i>AREA, ACRES</i>	<i>WATER DEMAND FACTOR, GPD PER ACRE</i>	<i>WATER DEMAND, AFY</i>
Single Family Residential	5,313	2,240	13,330
Multi-Family Residential	504	5,200	2,937
Industrial	440	240	118
Office	114	1,760	225
General Commercial	255	1,200	343
Agricultural	4	-	-
<i>Subtotal</i>	<i>6,631</i>	<i>-</i>	<i>16,954</i>
Unaccounted-for Water ^(A)	-	-	1,017
Total	-	-	17,971

SOURCE: WEST YOST, 2021

(A) AVERAGE UNACCOUNTED-FOR WATER FOR 2016-2020 IS 6 PERCENT OF WATER DEMAND.

Table 5.0-22 presents the projected surface water deliveries available to the City in 2045, four or five years before estimated buildout of Alternative D. These projections are based on SSJID’s estimated water use for the City in 2045 and the impact of hydrologic conditions on SSJID’s supplies. It is assumed that any delivery reductions to the City would be proportional to overall reductions in SSJID’s supplies. For example, if SSJID had 85 percent of normal supplies in a single dry year, then SSJID would deliver 85 percent of normal supplies to the City.

TABLE 5.0-22. PROJECTED SSJID SURFACE WATER DELIVERIES TO THE CITY OF MANTECA IN 2045

<i>HYDROLOGIC CONDITION</i>	<i>PERCENT OF NORMAL SUPPLY</i>	<i>PROJECTED WATER DELIVERY, AFY</i>
Normal Year	100	18,500
Single Dry Year	85	15,671
Multiple Dry Year 1	100	18,500
Multiple Dry Year 2	100	18,500
Multiple Dry Year 3	85	15,671
Multiple Dry Year 4	85	15,671
Multiple Dry Year 5	100	18,500

SOURCE: WEST YOST, 2022.

The ESJGS-GSP estimates the sustainable yield of the Eastern San Joaquin Subbasin at approximately 1 AFY/acre (715,000 AFY plus or minus 10 percent over the subbasin area of 1,195 square miles, an average of 0.935 AFY/acre). As shown in Table 5.0-23, West Yost assumes the City will limit groundwater production to approximately 24,877 AFY, based on the projected City area at buildout of the Alternative D Planning Area. The groundwater supply shown in Table 5.0-23 assumes the City would increase groundwater pumping as land is incorporated and removed from agricultural production.

TABLE 5.0-23. PROJECTED GROUNDWATER PRODUCTION AT BUILDOUT OF ALTERNATIVE D

<i>PLANNING AREA</i>	<i>AREA, ACRES</i>	<i>PROJECTED GROUNDWATER PRODUCTION, AFY^(A)</i>
Current City Limits	11,583	11,583
Additional Future Planning Area	13,294 ^(B)	13,294
Maximum Groundwater Supply		24,877

SOURCE: WEST YOST, 2022.

(A) BASED ON ASSUMPTION THAT 1 AFY OF GROUNDWATER IS AVAILABLE PER ACRE OF CITY SURFACE AREA FROM THE EASTERN SAN JOAQUIN GROUNDWATER SUBBASIN GROUNDWATER SUSTAINABILITY PLAN (NOVEMBER 2019).

(B) CITY AREA AT BUILDOUT OF THE ALTERNATIVE D PLANNING AREA PROVIDED BY DE NOVO PLANNING GROUP IN JANUARY 2022.

Table 5.0-24 presents the City’s total potable and raw water supply at buildout of Alternative D. The City’s potable water supplies consist of surface water deliveries and treated groundwater (i.e., municipal wells), while its raw water consists of untreated groundwater only (i.e., irrigation wells). Although SSJID only projected surface water deliveries to 2045, West Yost assumes that SSJID’s surface water deliveries to the City will remain the same from 2045 through buildout of Alternative D.

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TABLE 5.0-24. SUMMARY OF PROJECTED POTABLE AND RAW WATER SUPPLY AT BUILDOUT OF ALTERNATIVE D

<i>HYDROLOGIC CONDITION</i>	<i>SURFACE WATER DELIVERY, AFY^(A)</i>	<i>GROUNDWATER PRODUCTION, AFY^(B)</i>	<i>TOTAL POTABLE AND RAW WATER SUPPLY, AFY</i>
Normal Year	18,500	24,877	43,377
Single Dry Year	15,671	24,877	40,548
Multiple Dry Year 1	18,500	24,877	43,377
Multiple Dry Year 2	18,500	24,877	43,377
Multiple Dry Year 3	15,671	24,877	40,548
Multiple Dry Year 4	15,671	24,877	40,548
Multiple Dry Year 5	18,500	24,877	43,377

SOURCE: WEST YOST, 2022.

(A) SEE TABLE 5.0-21. SURFACE WATER DELIVERIES ARE ASSUMED TO REMAIN THE SAME FROM 2045 THROUGH BUILDOUT OF ALTERNATIVE D.

(B) SEE 5.0-22.

Alternative D indicates that the City does not intend to expand recycled water use at this time. The City currently uses undisinfected secondary effluent to irrigate fodder crops adjacent to the City's wastewater treatment plant. However, there is no infrastructure in place to deliver tertiary-treated recycled water to retail customers. Although a Recycled Water Master Plan is being prepared with the intent that the City would use recycled water to offset potable water demands for outdoor uses in the future, recycled water infrastructure is not planned to be constructed in time to serve the buildout of Alternative D. Therefore, it is assumed that recycled water is not an available water supply.

Table 5.0-25 compares the available water supply and projected demands at buildout of Alternative D. Based on the assumptions presented in this report, Table 5.0-25 indicates that the City would have sufficient water supplies to serve development of the proposed land uses through buildout of Alternative D.

TABLE 5.0-25. SUMMARY OF POTABLE AND RAW WATER DEMAND VERSUS SUPPLY AT BUILDOUT OF ALTERNATIVE D

<i>HYDROLOGIC CONDITION</i>	<i>SUPPLY AND DEMAND COMPARISON, AFY</i>
	<i>2040</i>
<i>NORMAL YEAR</i>	
Available Potable and Raw Water Supply ^(A)	37,000
Total Water Demand ^(B)	31,203
Potential Surplus (Deficit) ^(C)	5,797
Supply Shortfall, Percent of Demand	--
<i>SINGLE DRY YEAR</i>	
Available Potable and Raw Water Supply ^(A)	32,375
Total Water Demand ^(B)	31,203
Potential Surplus (Deficit) ^(C)	1,172
Supply Shortfall, Percent of Demand	--

HYDROLOGIC CONDITION		SUPPLY AND DEMAND COMPARISON, AFY
		2040
<i>MULTIPLE DRY YEAR</i>		
Multiple Dry Year 1	Available Potable and Raw Water Supply ^(A)	34,595
	Total Water Demand ^(B)	31,203
	Potential Surplus (Deficit) ^(C)	3,392
	Supply Shortfall, Percent of Demand	--
Multiple Dry Year 2	Available Potable and Raw Water Supply ^(A)	34,965
	Total Water Demand ^(B)	31,203
	Potential Surplus (Deficit) ^(C)	3,762
	Supply Shortfall, Percent of Demand	--
Multiple Dry Year 3	Available Potable and Raw Water Supply ^(A)	34,040
	Total Water Demand ^(B)	31,203
	Potential Surplus (Deficit) ^(C)	2,837
	Supply Shortfall, Percent of Demand	--

SOURCE: WEST YOST, 2021

(A) FROM TABLE 3.15-5.

(B) EXISTING DEMAND (TABLES 3.15-1 AND 3.15-2) PLUS PROJECTED DEMAND (TABLE 3.15-6).

(C) ANY POTENTIAL DEFICITS SHOWN IN THIS TABLE DO NOT TAKE INTO ACCOUNT DEMAND REDUCTIONS THAT WOULD OCCUR DURING DRY YEARS DUE TO IMPLEMENTATION OF THE WATER SHORTAGE CONTINGENCY PLAN.

As noted previously, the future water demand for Alternative D is approximately 1,894 AFY lower than the proposed General Plan. Both the proposed General Plan Update and Alternative D include a range of policies designed to ensure an adequate water supply for development and to minimize the potential adverse effects of increased water use. As detailed above, projected water demands associated with Alternative D buildout would not exceed the projected available water supplies, and the Alternative D includes a comprehensive set of goals, policies, and actions to ensure an adequate and reliable source of clean potable water. Therefore, impacts associated with sufficient water supplies to serve future development during normal, single dry, and multiple dry years are **less than significant**, similar to the proposed General Plan. The policies and actions listed below would further assist in ensuring that adequate water supplies are available to serve new growth projected under Alternative D.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

CF-6.1: *Ensure the water system and supply is adequate to meet the needs of existing and future development and is utilized in a sustainable manner.*

CF-6.2: *Ensure safe drinking water standards are met throughout the community.*

CF-6.3: *Pursue additional water supply agreements to supplement the City's existing system in order to meet projected demand and to reduce the City's reliance on groundwater resources.*

CF-6.4: *Ensure that the City's water supply provides for and supports a balance of jobs and housing in future development.*

5.0 ALTERNATIVES

CF-6.5: Prohibit extension of City water services to unincorporated areas except in extraordinary circumstances. Existing commitments for City water service outside the City limits shall continue to be honored.

CF-6.6: Limit development of private water wells to occur only if the City makes a finding that it cannot feasibly provide water service. Such systems shall only be allowed to be used until such time as City water service becomes available.

CF-6.7: Ensure that all new development provides for and funds a fair share of the costs for adequate water distribution, including line extensions, easements, and plant expansions.

CF-6.8: Continue efforts to reduce potable water use, increase water conservation, and establish water reuse and recycling systems.

CF-6.9: Evaluate opportunities for the use of recycled water for industrial uses and landscape irrigation where feasible, within the parameters of State and County Health Codes and standards.

CF-6.10: Consider the effect of incremental increases in the demands on groundwater supply and water quality when reviewing development applications.

Actions

CF-6a: Update the Public Facilities Implementation Plan, regarding water supply and distribution, every five years. The update shall reflect the most recent adopted groundwater studies that establish a safe yield for the groundwater basin and/or establish maximum extraction from the basin. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-6b: Continue to rely on groundwater resources in the near term, while participating in the regional efforts to deliver secure surface water to augment the City's groundwater supply in the mid and long term.

CF-6c: Develop new water sources, storage facilities, and major distribution lines as necessary to serve new development.

CF-6d: Regularly review and update the City's water conservation measures to be consistent with current best management practices for water conservation, considering measures recommended by the State Department of Water Resources, the California Urban Water Conservation Council, and the San Joaquin County Flood Control and Water Conservation District.

CF-6e: Continue to assess a water development fee on all new commercial, industrial, and residential development sufficient to fund system-wide capacity improvements. The water development fee schedule shall be periodically reviewed and revised as necessary.

CF-6f: Continuously monitor water flows through the City's water system to identify areas of potential water loss and instances of under billing for water service and make improvements to the system and billing assessments as necessary.

CF-6g: Require, as a condition of project approval, dedication of land and easements, or payment of appropriate fees and exactions, to help offset municipal costs of expansion of water treatment facilities and delivery systems.

CF-6h: Retain a water conservation ordinance requiring the installation of low-flush toilets, low-flow showerheads, and similar features in all new development.

CF-6j: Institute a remote monitoring program for the city's water system and replace faulty meters in the system as necessary. Continue the practice of identifying and replacing faulty meters at service connections on an ongoing basis.

CF-6j: Regularly monitor water quality in the water system and wells and take necessary measures to prevent contamination and reduce known contaminants to acceptable levels.

IMPACT 3.15-2: ALTERNATIVE D IMPLEMENTATION WOULD NOT REQUIRE OR RESULT IN THE CONSTRUCTION OF NEW WATER TREATMENT FACILITIES OR EXPANSION OF EXISTING FACILITIES, THE CONSTRUCTION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS (LESS THAN SIGNIFICANT)

Development and growth in the City under both the proposed General Plan and Alternative D would result in increased demand for water supplies, including water conveyance and treatment infrastructure. Both the proposed General Plan and Alternative D include policies and actions to ensure that water supplies are provided at acceptable levels and to ensure that development and growth does not outpace the provision of available water supplies.

As described under Impact 3.15-1, the projected water supplies are adequate to meet demand that would be generated by buildout of both the General Plan and Alternative D. As such, implementation and buildout of both the General Plan and Alternative D are not anticipated to result in the need to construct or expand water treatment facilities that have not already been described and accounted for in the Districts' relevant water planning efforts, which include the 2005 Water Master Plan and the 2020 UWMP.

It is anticipated that water supply infrastructure will need to be extended to serve future development. Future development in both the General Plan and Alternative D Planning Areas would be required to connect to existing water distribution infrastructure in the vicinity of each site, pay the applicable water system fees, and pay the applicable water usage rates. Future projects may be required to implement site specific and limited off-site improvements to the water distribution system in order to connect new project sites to the existing water infrastructure network.

The City will be updating its water, sewer, recycled water, and storm water master plans in the near future to identify necessary infrastructure to meet the needs of population growth and new development.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the policies and actions, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. The specific impacts of providing new and expanded water distribution infrastructure cannot be determined at this

time, as Alternative D does not propose or authorize any specific development projects or include details on any future development projects.

However, any future improvements to the existing water distribution infrastructure would be primarily provided on sites with land use designations that allow for urbanized land uses, and the environmental impacts of constructing and operating the new water distribution infrastructure (meeting the most current standards and regulations), are anticipated to be similar to those associated with new development, redevelopment, and infrastructure projects under the proposed General Plan, as discussed in this section of this Draft EIR. Therefore, this impact is considered **less than significant** and no additional mitigation is necessary, similar to the proposed General Plan.

IMPACT 3.15-3: ALTERNATIVE D IMPLEMENTATION WOULD NOT HAVE THE POTENTIAL TO RESULT IN A DETERMINATION BY THE WASTEWATER TREATMENT PROVIDER WHICH SERVES OR MAY SERVE THE PROJECT THAT IT DOES NOT HAVE ADEQUATE CAPACITY TO SERVE THE PROJECT'S PROJECTED DEMAND IN ADDITION TO THE PROVIDER'S EXISTING COMMITMENTS (LESS THAN SIGNIFICANT)

The City's sewer service area is contiguous with City limits, and is divided into north, south and central sewer sheds. The municipal wastewater collection system includes 242 miles of sewer mains and 19 pump stations (City of Manteca, 2017). The collection system includes gravity flow pipes ranging from 6-inch to 60-inch diameter, and force mains from 6-inch to 24-inch diameter (EDAW, 2007). Municipal wastewater is treated at the City's WQCF, which treats municipal sanitary sewage from the City of Manteca, portions of Lathrop, and Raymus Village, northeast of Manteca. The WQCF treated an average dry weather flow (ADWF) of about 7.2 mgd in 2020 and had an original Phase III average dry weather design capacity of 9.87 mgd. Per contractual agreement, 8.42 mgd of plant capacity is allocated to the City of Manteca and 1.45 mgd is allocated to the City of Lathrop (EDAW, 2007).

As Manteca continues to develop in the future, there will be an increased need for water and wastewater services, potentially including a reliable source of water and recycled water. Future needs of wastewater processing have been addressed in the WQCF master plan and will require that the city continue to implement phased improvements to some pump stations, sewer mains, and the various wastewater treatment plants when triggered by growth.

The Manteca WQCF is an activated sludge plant with denitrification. The WQCF consists of an influent pump station, aerated grit tanks, primary sedimentation basins, fine-bubble activated sludge aeration basins, secondary clarifiers, secondary effluent equalization pond, tertiary filters, UV disinfection and effluent pumping station. Secondary effluent is land applied during the spring and summer. Tertiary filtered and UV disinfected water is discharged to the San Joaquin River during the winter.

The 2006 Wastewater Master Plan Update projected a capacity requirement of 27 mgd ADWF at buildout for the WQCF at buildout. Expansion of the WQCF to buildout would occur in multiple phases, which would increase the ADWF capacity to 17.5 mgd, then to 27 mgd. The Wastewater Master Plan projected a potential reclaimed water use of 3.28 mgd. The 2005 Urban Water

Management Plan projected a reclaimed water usage of 2 mgd by 2030. All of these flows may be adjusted based on historical reductions in water usage as part of a new Wastewater Master Plan which will start in 2021 and finish in 2023.

It is now anticipated that buildout of the proposed General Plan under reduced water usage may result in a total demand for approximately 18.9 mgd compared to the original 27 mgd. This total demand of 18.9 mgd, which includes demand associated with existing development, is well within the planned capacity of the WQCF with Phase IV and Phase V expansion completed.

The projected flows of the proposed General Plan for the WQCF are not expected to exceed the treatment capacity available for treatment with the interim improvements and the Phase IV and V expansions completed. While full buildout of the development contemplated in Alternative D would slightly increase the existing treatment demand at the districts' treatment plants, Alternative D includes a range of policies designed to ensure an adequate wastewater treatment capacity for development. Additionally, the City must also periodically review and update their Wastewater and WQCF Master Plans, and as growth continues to occur within the Planning Area, the City will identify necessary system upgrades and capacity enhancements to meet growth.

Given that projected wastewater generation volumes associated with Alternative D buildout would not exceed the projected wastewater generation volumes described in the WQCF Master Plan, this impact would be ***less than significant***, and no mitigation is required, similar to the proposed General Plan.

However, both the proposed General Plan and Alternative D include a comprehensive set of goals, policies, and actions to ensure an adequate and reliable wastewater collection and treatment system. The policies and actions listed below would further assist in ensuring that adequate wastewater treatment and conveyance infrastructure is available to serve new growth.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

CF-7.1: Ensure adequate wastewater collection and treatment infrastructure to serve existing and future development and the safe disposal of wastes.

CF-7.2: Develop new sewage treatment and trunk line capacity as necessary to serve new development. The City shall incorporate current technologies into the design and operation of these facilities.

CF-7.3: Only extend sewer services to unincorporated areas under extraordinary circumstances. Existing commitments for sewer service outside the city limits shall continue to be honored.

CF-7.4: Only allow the development of individual septic systems where it is not feasible to provide public sewer service. Such systems shall only be used until such time as City sewer service becomes available and meet the minimum standards of the San Joaquin County Health Department.

CF-7.5: Maintain the ability to handle peak discharge flow while meeting State Regional Water Quality Control Board Standards as established in the current NPDES Permit.

5.0 ALTERNATIVES

CF-7.6: Maintain the existing wastewater system on a regular basis to increase the lifespan of the system and ensure public health and safety.

Actions

CF-7a: Update the Public Facilities Implementation Plan regarding wastewater collection and treatment every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-7b: Require new development to provide for and fund a fair share of the costs for adequate sewer distribution and treatment, including line extensions, easements, and plant expansions.

CF-7c: Require all sewage generators within the City's service area to connect to the City's system, except those areas where on-site treatment and disposal facilities are deemed appropriate.

CF-7d: Encourage an industrial pretreatment program for business parks and other industrial uses when deemed necessary in accordance with state and federal requirements.

CF-7e: Investigate methods of improving the quality of the effluent from the City wastewater treatment plant and options for reuse of treated wastewater including direct potable reuse. The recycled wastewater will be used for irrigation of public recreation lands, restoration of wetland areas, irrigation of landscaped areas, dust control, fire protection, and soil compaction.

CF-7f: Promote reduced wastewater system demand through efficient water use by:

- *Requiring water conserving design and equipment in new construction,*
- *Encouraging retrofitting with water conserving devices,*
- *Designing wastewater systems to minimize inflow and infiltration to the extent economically feasible; and*
- *Maintaining a Citywide map of all sewer collection system components and monitoring the condition of the system on a regular basis.*

IMPACT 3.15-4: ALTERNATIVE D IMPLEMENTATION MAY REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW OR EXPANDED WASTEWATER FACILITIES, THE CONSTRUCTION OR RELOCATION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS (LESS THAN SIGNIFICANT)

Development contemplated under both the proposed General Plan and Alternative D would result in increased wastewater flows, resulting in the need for additional or expanded wastewater treatment facilities and conveyance infrastructure.

The City has planned for the expansion of the WQCF. The NPDES Permit Order R5-2021-0003 NPDES NO. CA0081558 allows an increase discharge flow to 17.5 mgd conditional upon compliance with permit limitations and completion of the Facility Phase IV expansion and other projects. The City of Manteca developed and submitted an antidegradation analysis for proposed WQCF discharge modifications that provides a complete antidegradation analysis following the guidance provided by State Water Board APU 90-004. Pursuant to the guidelines, the Antidegradation Analysis evaluated whether changes in water quality resulting from the capacity

increase (17.5 mgd year-round tertiary treated discharge) are consistent with the maximum benefit to the people of the state, will not unreasonably affect beneficial uses, will not cause water quality to be less than water quality objectives, and that the discharge provides protection for existing in-stream uses and water quality necessary to protect those uses.

During the planned Phase IV expansion, the City is proposing to increase the permitted wastewater discharge capacity of the WQCF to 17.5 mgd (ADWF) and construct new trunk sewers to accommodate growth contained in the City's General Plan (City of Manteca, 2003). Subsequent phases are planned to increase the permitted discharge capacity to 27 mgd. The project includes treatment plant improvements for both river and land-based wastewater effluent disposal based on current and future probable water quality discharge requirements and projected flows. The City proposes to accommodate the increase in capacity by using the City's long-term effluent disposal strategy that includes land application, urban landscape irrigation, and river discharge. The proposed project would also include the incremental construction of new trunk sewers and improvements to the existing collection system. Subsequent expansion of the wastewater treatment and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under Alternative D. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the policies and actions, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this impact would be ***less than significant***, and no additional mitigation is required, similar to the proposed General Plan.

Both Alternative D and the proposed General Plan include policies and actions designed to ensure adequate wastewater treatment capacity is available to serve development and to minimize the potential adverse effects of wastewater treatment. These policies and actions are listed below.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

CF-7.1: Ensure adequate wastewater collection and treatment infrastructure to serve existing and future development and the safe disposal of wastes.

CF-7.2: Develop new sewage treatment and trunk line capacity as necessary to serve new development. The City shall incorporate current technologies into the design and operation of these facilities.

CF-7.3: Only extend sewer services to unincorporated areas under extraordinary circumstances. Existing commitments for sewer service outside the city limits shall continue to be honored.

CF-7.4: Only allow the development of individual septic systems where it is not feasible to provide public sewer service. Such systems shall only be used until such time as City sewer service becomes available and meet the minimum standards of the San Joaquin County Health Department.

5.0 ALTERNATIVES

CF-7.5: Maintain the ability to handle peak discharge flow while meeting State Regional Water Quality Control Board Standards as established in the current NPDES Permit.

CF-7.6: Maintain the existing wastewater system on a regular basis to increase the lifespan of the system and ensure public health and safety.

Actions

CF-7a: Update the Public Facilities Implementation Plan regarding wastewater collection and treatment every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-7b: Require new development to provide for and fund a fair share of the costs for adequate sewer distribution and treatment, including line extensions, easements, and plant expansions.

CF-7c: Require all sewage generators within the City's service area to connect to the City's system, except those areas where on-site treatment and disposal facilities are deemed appropriate.

CF-7d: Encourage an industrial pretreatment program for business parks and other industrial uses when deemed necessary in accordance with state and federal requirements.

CF-7e: Investigate methods of improving the quality of the effluent from the City wastewater treatment plant and options for reuse of treated wastewater including direct potable reuse. The recycled wastewater will be used for irrigation of public recreation lands, restoration of wetland areas, irrigation of landscaped areas, dust control, fire protection, and soil compaction.

CF-7f: Promote reduced wastewater system demand through efficient water use by:

- *Requiring water conserving design and equipment in new construction,*
- *Encouraging retrofitting with water conserving devices,*
- *Designing wastewater systems to minimize inflow and infiltration to the extent economically feasible; and*
- *Maintaining a Citywide map of all sewer collection system components and monitoring the condition of the system on a regular basis.*

IMPACT 3.15-5: ALTERNATIVE D IMPLEMENTATION WOULD NOT REQUIRE OR RESULT IN THE RELOCATION OR CONSTRUCTION OF NEW OR EXPANDED STORM WATER DRAINAGE FACILITIES, THE CONSTRUCTION OR RELOCATION OF WHICH COULD CAUSE SIGNIFICANT ENVIRONMENTAL EFFECTS (LESS THAN SIGNIFICANT)

Development under both the proposed General Plan and Alternative D would result in increased areas of impervious surfaces throughout the Planning Area, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure. The infrastructure and facilities necessary to serve new growth would involve development of some facilities on-site within new development projects, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way. The specific impacts of providing new and expanded drainage facilities cannot be determined at this

time, as the General Plan does not propose or approve any specific development project nor does it designate specific sites for new or expanded public facilities.

Stormwater drainage and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan as discussed throughout this Draft EIR.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the policies and actions, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this is a **less than significant** impact and no mitigation is required, similar to the proposed General Plan.

The policies and actions listed below would further ensure that there is adequate stormwater drainage and flood control infrastructure to serve future development under Alternative D, and would ensure that future drainage and flood control infrastructure projects do not result in adverse environmental impacts.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

CF-8.1: *Maintain and improve Manteca's storm drainage facilities.*

CF-8.2: *Require all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants shall mitigate any drainage impacts as necessary and shall demonstrate that the project will not result in any increase in off-site runoff during rain and flood events.*

CF-8.3: *Continue to allow dual-use detention basins for parks, ball fields, and other uses where appropriate.*

CF-8.4: *Incorporate recreational trails and parkway vegetation design where open stormwater facilities are appropriate and ensure that vegetation does not reduce channel capacity.*

CF-8.5: *Maintain drainage channels in a naturalized condition where appropriate, incorporating recreational trails, parkway vegetation, and other amenities and ensuring that vegetation does not reduce channel capacity, and consistent with the Resource Conservation Element.*

CF-8.6: *Continue to work cooperatively with outside agencies such as the San Joaquin County Flood Control and Water Conservation District regarding storm drainage issues.*

5.0 ALTERNATIVES

Actions

CF-8a: Update the Storm Drainage Master Plan and Public Facilities Implementation Plan every five years. The update shall be reviewed annually for adequacy and consistency with the General Plan.

CF-8b: Continue to complete gaps in the drainage system in areas of existing and future development.

CF-8c: Identify which storm water and drainage facilities are in need of repair and address these needs through the City's Capital Improvement Program.

CF-8d: Continue to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure that off-site runoff is not increased as a during rain and flood events.

IMPACT 3.15-6: ALTERNATIVE D IMPLEMENTATION WOULD COMPLY WITH FEDERAL, STATE, AND LOCAL MANAGEMENT AND REDUCTION STATUTES AND REGULATIONS RELATED TO SOLID WASTE, WOULD NOT GENERATE SOLID WASTE IN EXCESS OF STATE OR LOCAL STANDARDS OR OTHERWISE IMPAIR THE ATTAINMENT OF SOLID WASTE REDUCTION GOALS, AND WOULD NOT EXCEED OF THE CAPACITY OF LOCAL INFRASTRUCTURE (LESS THAN SIGNIFICANT)

The development of future land uses under the proposed General Plan and Alternative D would increase solid waste disposal needs and could have the potential to require the construction of new landfill facilities, or expansion of existing facilities.

Future development of projects as contemplated under the proposed General Plan may increase the population within the Planning Area to approximately 121,168 persons. Future development of projects as contemplated under Alternative D may increase the population within the Planning Area to approximately 116,546 persons.

The City's per capita waste generation rate increased from 4.9 to 5.9 lbs/person/day over the 8-year (2010-2018) period. The average disposal rate was 5.0 lbs/person/day. Assuming the average disposal rate remains constant throughout the life of the General Plan, the new growth under General Plan buildout would result in an increase of approximately 605,840 lbs/day of solid waste, which equals 302.9 tons per day or 110,559 tons of solid waste per year. In comparison, the new growth under Alternative D buildout would result in an increase of approximately 582,730 pounds per day of solid waste, which equals 291,4 tons per day or 106,361 tons of solid waste per year. Compared to the proposed General Plan, this future growth under Alternative D is estimated to decrease by 3,928 tons per year.

Forward Landfill was projected to close in 2020 at current acceptance rates due to reaching its permitted size parameters. To increase the lifespan of the landfill, Forward, Inc. is planning to expand its disposal footprint. The City's projected increase in solid waste generation associated with future buildout of the proposed General Plan is within the permitted capacity of the Forward

Sanitary Landfill expansion. The vast majority of landfill disposed from the City of Manteca went to Forward Sanitary Landfill.³ Other landfills that received waste from the City of Manteca include:

- Lovelace Materials Recovery Facility and Transfer Station
- San Joaquin County Hazardous Waste
- Foothill Sanitary Landfill
- North County

Forward Sanitary Landfill has a remaining capacity of 23,700,000 cubic yards, and has a current maximum permitted throughput of 8,668 tons per day. This landfill originally had a cease operation date in the year 2020. A 17.3-acre expansion was approved in January of 2020 inside the landfill's existing boundaries along Austin Road east of Stockton Metropolitan Airport. The lifespan of the landfill will extend from 2030 to 2036 and an additional 8.2 million cubic yards of waste will be processed on two sites, an 8.7-acre parcel in the northeast corner and an 8.6-acre parcel on the south end of the property.

The City's solid waste per capita generation has decreased since 2007 due to the waste diversion efforts of the City. The additional solid waste generation associated with the proposed General Plan, approximately 47.7 tons per day at total buildout, to the Forward Landfill would not exceed the landfill's remaining and additional capacity until landfill closure in 2036. The City will need to secure a new location or expand existing facilities when the Forward Landfill is ultimately closed. There are several options that the City will have to consider for solid waste disposal at that time which is estimated to be 2036, including the construction of new facilities or expansion of existing facilities.

At the closure of the Forward Landfill, the City can potentially utilize the Foothill Landfill and the North County Landfill as locations for solid waste disposal. The permitted maximum disposal at the Foothill Landfill is 1,500 tons per day and the North County Landfill is 825 tons per day. The remaining capacity of these landfills include 125 million cubic yards of solid waste at the Foothill Landfill, with an estimated cease operation date of 2054, and 35.4 million cubic yards of solid waste at the North County Landfill, which has an estimated cease operation date of 2035. The addition of solid waste associated with the proposed project to the Foothill Landfill and North County Landfill would not exceed the combined landfills' remaining capacity of 160.4 cubic yards. While there are no plans for landfill construction or expansion associated with the proposed General Plan, development of new solid waste disposal facilities could result in environmental effects in areas such as traffic, hydrology, biology, air quality, greenhouse gases, and noise. Any future construction projects in would be required to conduct environmental review pursuant to CEQA prior to approval. As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the policies and actions, Municipal Code, and other applicable regulations associated with solid waste. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

³ Note: data provided by CalRecycle, based on information provided by County disposal reports.

5.0 ALTERNATIVES

As such, this impact would be *less than significant*, and no mitigation is required, similar to the proposed General Plan.

Alternative D Policies and Actions that Minimize the Potential for Impacts

Policies

CF-11.1: *Continue to require mandatory refuse collection throughout the city.*

CF-11.2: *Implement and enforce the provisions of the City's Source Reduction and Recycling Program and update the program as necessary to meet or exceed the State waste diversion requirements.*

CF-11.3: *Reduce municipal waste generation by increasing recycling, on-site composting, and mulching, where feasible, at municipal facilities, as well as using resource efficient landscaping techniques in new or renovated.*

CF-11.4: *Encourage residential, commercial, and industrial recycling and reuse programs and techniques.*

CF-11.5: *Coordinate with and support other local agencies and jurisdictions in the region to develop and implement effective waste management strategies and waste-to-energy technologies.*

CF-11.6: *Support the continued use of the Lovelace Transfer Station on Lovelace Road, between Union Road and Airport Way, for the processing and shipping of solid waste materials.*

Actions

CF-11a: *Regularly monitor the level of service provided by garbage and recycling collection contractors to ensure that service levels are adequate.*

CF-11b: *Implement recycling and waste reduction education programs for City employees. The education program will disseminate information on what and how much is recycled by the City.*

CF-11c: *Expand the provision of recycling collection containers and services to all City facilities, including parks.*

CF-11d: *Include standard language in requests for services and in City agreements requiring contractors to use best management practices to maximize diversion of waste from the landfill.*

CF-11e: *Coordinate with San Joaquin County concerning the City's use of the Lovelace Landfill and its capacity projections.*

CF-11f: *Encourage recycling, reuse, and appropriate disposal of hazardous materials, including the following:*

- *Increased participation in single family and multifamily residential curbside recycling programs;*
- *Increased participation in commercial and industrial recycling programs for paper, cardboard, and plastics;*

- *Reduce yard and landscaping waste through methods such as composting, grass recycling, and using resource efficient landscaping techniques; and*
- *Encourage local businesses to provide electronic waste (e-waste) drop-off services and encourage residents and businesses to properly dispose of, or recycle, e-waste.*

CF-11g: Expand educational and outreach efforts, in partnership with state, regional, local agencies, relevant organizations, businesses, schools, etc. to promote recycling and waste reduction.

Wildfire

IMPACT 3.16-1: ALTERNATIVE D IMPLEMENTATION WOULD NOT HAVE A SIGNIFICANT IMPACT RELATED TO WILDFIRE RISKS ASSOCIATED WITH LANDS IN OR NEAR STATE RESPONSIBILITY AREAS OR LANDS CLASSIFIED AS VERY HIGH FIRE HAZARD SEVERITY ZONES (NO IMPACT)

The Alternative D Planning Area is not located in or near any State Responsibility Areas and there are no lands classified as very high fire hazard severity zones within or near the Planning Area. Therefore, Alternative D would have **no impact** related to wildfire risks associated with lands in or near State Responsibility Areas or lands classified as very high fire hazard severity zones.

Irreversible Effects

Alternative D would have a significant and unavoidable impact associated with irreversible environmental effects and adverse effects on human beings. Implementation of Alternative D would result in a commitment of land uses designated for the foreseeable future. Land use and development consistent with Alternative D would result in irretrievable commitments by introducing development onto sites that are presently undeveloped. The conversion of agricultural lands to urban uses would result in an irretrievable loss of agricultural land, wildlife habitat, and open space. Additionally, development will physically change the environment in terms of aesthetics, air emission, noise, traffic, open space, and natural resources. These physical changes are irreversible after development occurs. Therefore, Alternative D would result in changes in land use within the Planning Area that would commit future generations to these uses and that can expose human beings to adverse environmental effects.

While Alternative D would result in a reduction in housing and population growth, this alternative would also result in an increase in non-residential square footage and an increase in jobs in comparison to the proposed General Plan. Overall, this Alternative would result in a larger urban footprint compared to the proposed General Plan and an increase in overall development potential and uses that could result in irreversible effects and adverse impacts. Alternative D would use nonrenewable resources, including metals, stone, and other materials related to construction, and result in on-going demand for fossil fuels and other resources associated with energy production at levels slightly reduced when compared to the proposed project. The associated irretrievable commitment of nonrenewable resources and permanent conversion of agricultural, and other undeveloped lands under Alternative D would remain a significant impact. Alternative D would slightly worse in terms of impacts as Alternative D would conserve less land in the Urban Reserve, Open Space, and Agriculture designations and result in an overall increase in the total development footprint when compared to the proposed General Plan.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in the EIR. If the No Project Alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). The environmentally superior alternative is that alternative with the least adverse environmental impacts when compared to the proposed General Plan.

A comparative analysis of the proposed General Plan and each of the Project alternatives is provided in Table 5.0-26 below. The table includes a numerical scoring system, which assigns a score of 1 to 5 to each of the alternatives with respect to how each alternative compares to the proposed project in terms of the severity of the environmental topics addressed in this EIR. A score of “3” indicates that the alternative would have the same level of impact when compared to the proposed project. A score of “1” indicates that the alternative would have a better (or reduced) impact when compared to the proposed project. A Score of “2” indicates that the alternative would have a slightly better (or slightly reduced) impact when compared to the proposed project. A score of “4” indicates that the alternative would have a slightly worse (or slightly increased) impact when compared to the proposed project. A score of “5” indicates that the alternative would have a worse (or increased) impact when compared to the proposed project. The project alternative with the lowest total score is considered the environmentally superior alternative.

As shown in Table 5.0-26, Alternative B is the environmentally superior alternative when looked at in terms of all potential environmental impacts. While Alternatives C and D are also superior to the proposed General Plan, Alternative B is slightly superior in several categories, including air quality, greenhouse gases, climate change, and energy, and transportation and circulation impacts resulting in a higher overall score for Alternative B. Alternative D is also slightly superior to the proposed General Plan in several categories, including air quality, greenhouse gases, climate change, and energy, and transportation and circulation, but to a lesser extent than Alternative B. Throughout the preparation of the General Plan Update, the City Council, Planning Commission, and GPAC all expressed a desire and commitment to ensuring that the General Plan not only reflect the community’s values and priorities, but also serve as a self-mitigating document and avoid significant environmental impacts to the greatest extent feasible. To that end, the proposed General Plan includes the fully range of feasible mitigation available to reduce potential impacts to the greatest extent possible.

TABLE 5.0-26: COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT

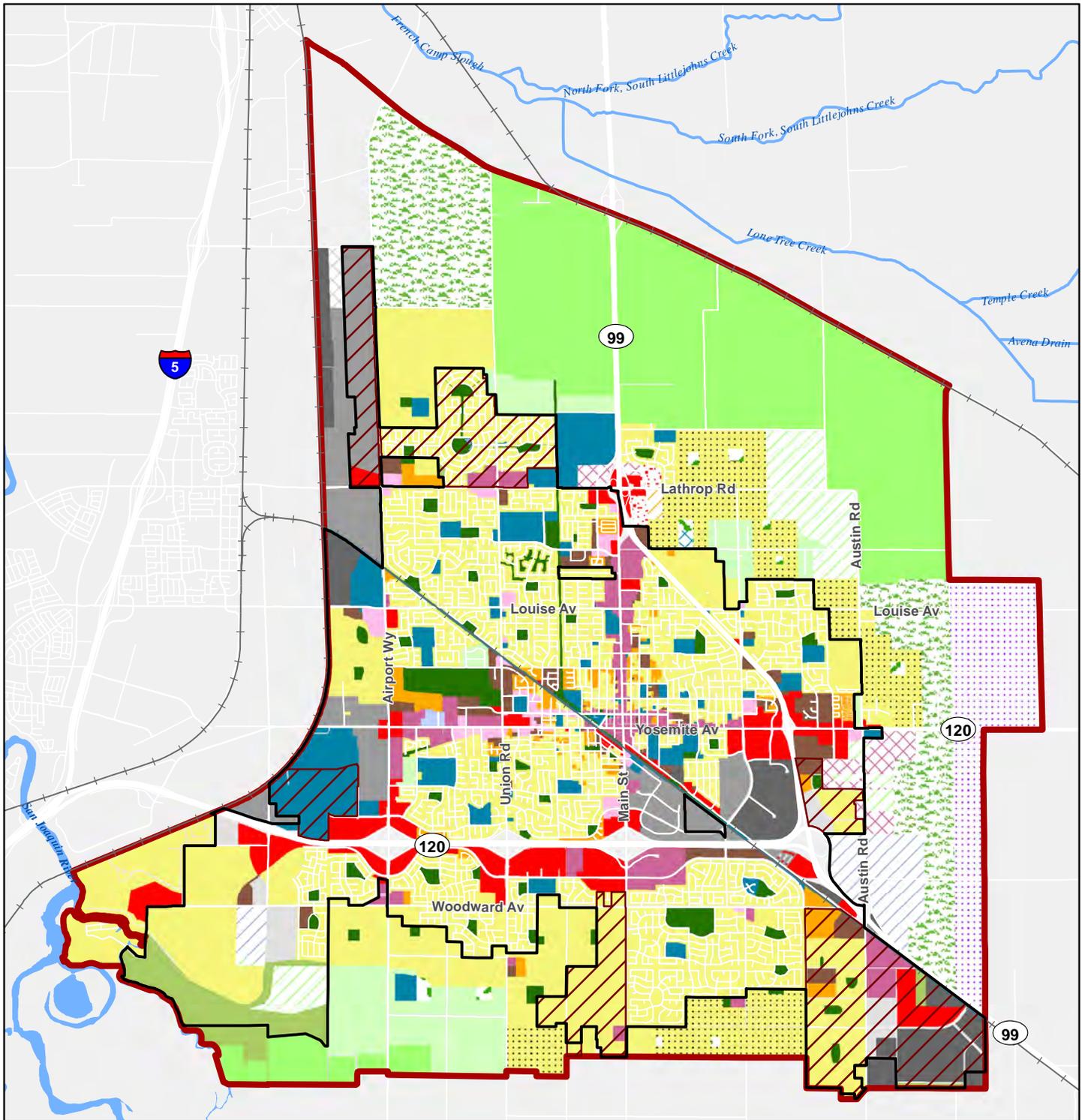
<i>ENVIRONMENTAL ISSUE</i>	<i>PROPOSED PROJECT</i>	<i>ALTERNATIVE A (NO PROJECT)</i>	<i>ALTERNATIVE B</i>	<i>ALTERNATIVE C</i>	<i>ALTERNATIVE D</i>
Aesthetics and Visual Resources	3 – Same	1 – Better	2 – Slightly Better	4 – Slightly Worse*	5 – Slightly Worse*
Agricultural and Forest Resources	3 – Same	1 – Better	1 – Better	2 – Slightly Better	4 – Slightly Worse
Air Quality	3 – Same	5 – Worse	1 – Better	3 - Similar	3 – Slightly Worse
Biological Resources	3 – Same	2 – Slightly Better	2 – Slightly Better	4 – Slightly Worse	4 – Slightly Worse
Cultural and Tribal Resources	3 – Same	2 – Slightly Better	2 – Slightly Better*	3 - Similar	4 – Slightly Worse
Geology and Soils	3 – Same	5 – Slightly Worse	2 – Slightly Better	4 – Slightly Worse	4 – Slightly Worse
Greenhouse Gases, Climate Change, and Energy	3 – Same	5 – Worse	2 – Slightly Better	3 – Similar	4 – Slightly Worse
Hazards and Hazardous Materials	3 – Same	5 – Slightly Worse	3 – Similar	3 - Similar	3 - Similar
Hydrology and Water Quality	3 – Same	2 – Slightly Better*	1 – Slightly Better*	4 – Slightly Worse	4 – Slightly Worse
Land Use and Population	3 – Same	5 – Slightly Worse	3 - Similar	3 – Similar	3 – Similar
Mineral Resources	3 – Same	3 – Similar	3 – Similar	3 – Similar	3 – Similar
Noise	3 – Same	1 – Better	4 – Slightly Worse	4 – Slightly Worse	4 – Slightly Worse
Public Services and Recreation	3 – Same	3 – Slightly Better	4 – Slightly Worse	4 – Slightly Worse*	4 – Slightly Worse
Transportation and Circulation	3 – Same	5 – Worse	1 – Slightly Better*	2 – Slightly Better*	4 – Slightly Worse
Utilities	3 – Same	3 – Slightly Better	4 – Slightly Worse	4 – Slightly Worse	4 – Slightly Worse
Wildfire	3 – Same	3 – Similar	3 – Similar	3 – Similar	3 – Similar
Irreversible Effects	3 – Same	1 – Better	3 – Similar*	4 – Slightly Worse*	4 – Slightly Worse
SUMMARY	77	53	33	43	45

**FOR THIS TIE BETWEEN ALTERNATIVES, THE BETTER ALTERNATIVE RECEIVED A HIGHER SCORE.*

Overall, Alternative B is the environmentally superior alternative as it is the most effective in terms of overall reductions of impacts compared to the proposed General Plan and all other alternatives. As such, Alternative B is the environmentally superior alternative for the purposes of this EIR analysis. Additionally, similar to the Proposed General Plan, Alternative B meets all project objectives. Like the proposed project, Alternative B reflects the current goals and vision expressed by city residents, businesses, decision-makers, and other stakeholders; addresses issues and concerns identified by city residents, businesses, decision-makers, and other stakeholders; protects Manteca’s family-oriented environment, character, and sense of community; provides a range of high-quality housing options; attracts and retains businesses and industries that provide high-quality and high-paying jobs so that residents can live and work in Manteca; expands retail shopping opportunities to provide better local services and increased sales tax revenues; continues to maintain the road network and improve multimodal

5.0 ALTERNATIVES

transportation opportunities; maintains strong fiscal sustainability; continues to provide efficient and adequate public services; and addresses new requirements of State law.

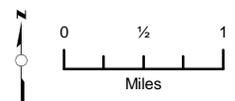


CITY OF MANTECA GENERAL PLAN

Figure 5.0-1. Alternative A
Existing General Plan Land Use Map

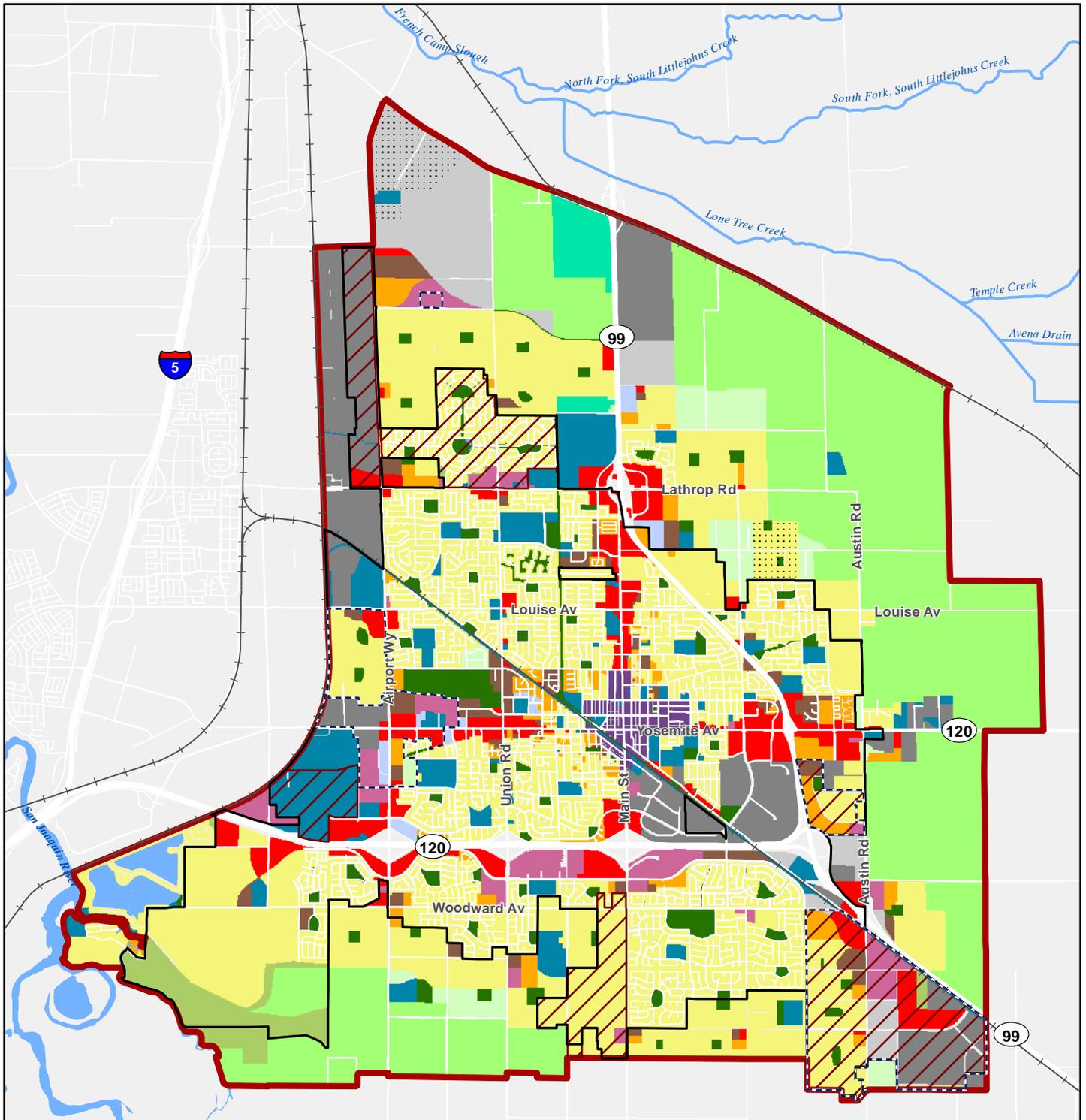
Legend

- | | | |
|-------------------------------------|--------------------------------|---------|
| City of Manteca | HDR - High Density Residential | UR-CMU |
| Manteca Planning Area | BIP - Business Industrial Park | UR-GC |
| Master/Specific Plan Overlay | BP - Business Professional | UR-VLDR |
| AG - Agriculture | LI - Light Industrial | UR-LDR |
| NC - Neighborhood Commercial | HI - Heavy Industrial | UR-MDR |
| CMU - Commercial Mixed Use | OS - Open Space | UR-BIP |
| GC - General Commercial | P - Park | UR-LI |
| VLDR - Very Low Density Residential | PQP - Public/Quasi-Public | UR-P |
| LDR - Low Density Residential | UR - Urban Reserve | UR-PQP |
| MDR - Medium Density Residential | UR-AG | |



Sources: City of Manteca; San Joaquin County. Map date: February 11, 2022. Revised August 27, 2022.

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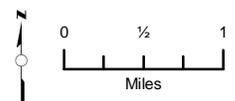
Legend

- Manteca City Limits
- Planning Area
- Master/Specific Plan Overlay
- Policy Area
- Urban Reserve Overlay
- AI - Agricultural Industrial
- AG - Agriculture
- C - Commercial
- CMU - Commercial Mixed Use
- DW - Downtown
- VLDR - Very Low Density Residential
- LDR - Low Density Residential
- MDR - Medium Density Residential
- HDR - High Density Residential
- BIP - Business Industrial Park
- BP - Business Professional
- I - Industrial
- OS - Open Space
- P - Park
- PQP - Public/Quasi-Public

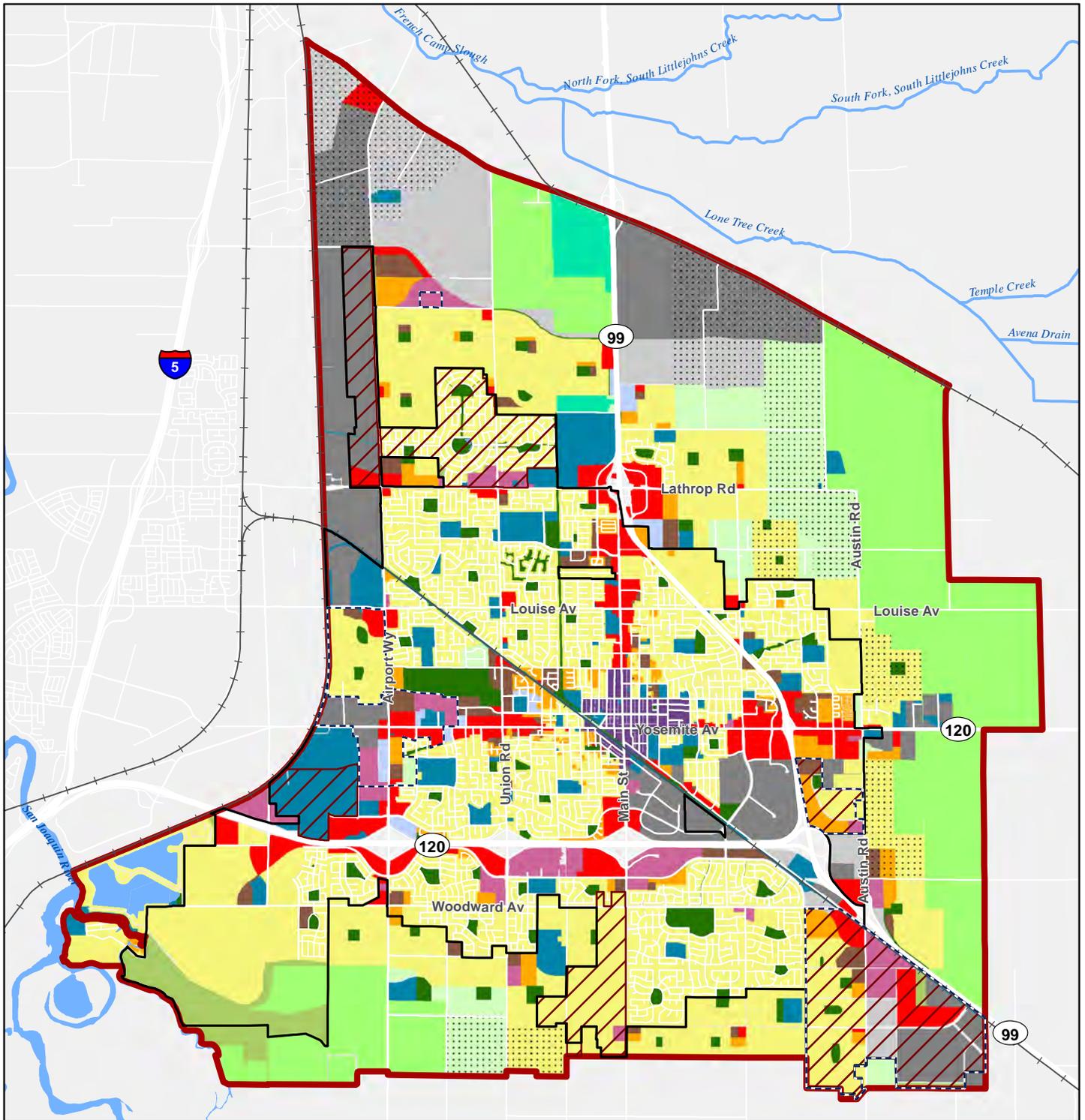
Sources: City of Manteca; San Joaquin County. Map date: April 7, 2021. Revised: September 19, 2022.

CITY OF MANTECA GENERAL PLAN

**Figure 5.0-2. Alternative B
Residential and Balanced Employment Growth**



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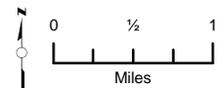


Legend

- | | |
|-------------------------------------|----------------------------------|
| Manteca City Limits | LDR - Low Density Residential |
| Planning Area | MDR - Medium Density Residential |
| Policy Area | HDR - High Density Residential |
| Master/Specific Plan Overlay | BIP - Business Industrial Park |
| AI - Agricultural Industrial | BP - Business Professional |
| AG - Agriculture | I - Industrial |
| C - Commercial | OS - Open Space |
| CMU - Commercial Mixed Use | P - Park |
| DW - Downtown | PQP - Public/Quasi-Public |
| VLDR - Very Low Density Residential | |

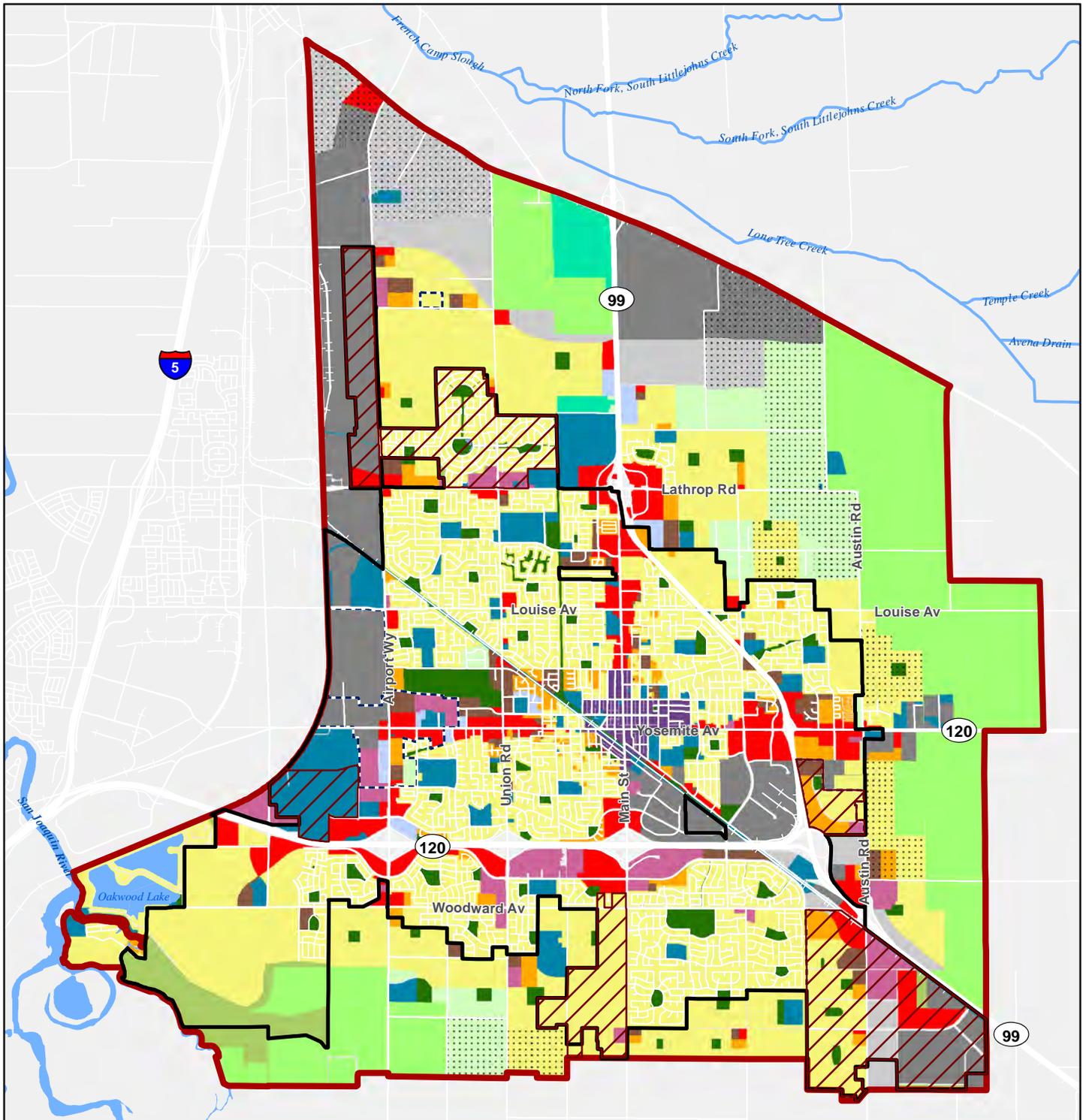
CITY OF MANTECA GENERAL PLAN

Figure 5.0-2. Alternative C
Increased Intensity Residential and
Balanced Employment Growth



Sources: City of Manteca; San Joaquin County. Map date: April 7, 2021. Updated August 26, 2022.

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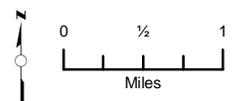
Legend

- Manteca City Limits
- Planning Area
- Policy Area
- Urban Reserve Overlay
- Master/Specific Plan Overlay
- AI - Agricultural Industrial
- AG - Agriculture
- C - Commercial
- CMU - Commercial Mixed Use
- DW - Downtown
- VLDR - Very Low Density Residential
- LDR - Low Density Residential
- MDR - Medium Density Residential
- HDR - High Density Residential
- BIP - Business Industrial Park
- BP - Business Professional
- I - Industrial
- OS - Open Space
- P - Park
- PQP - Public/Quasi-Public

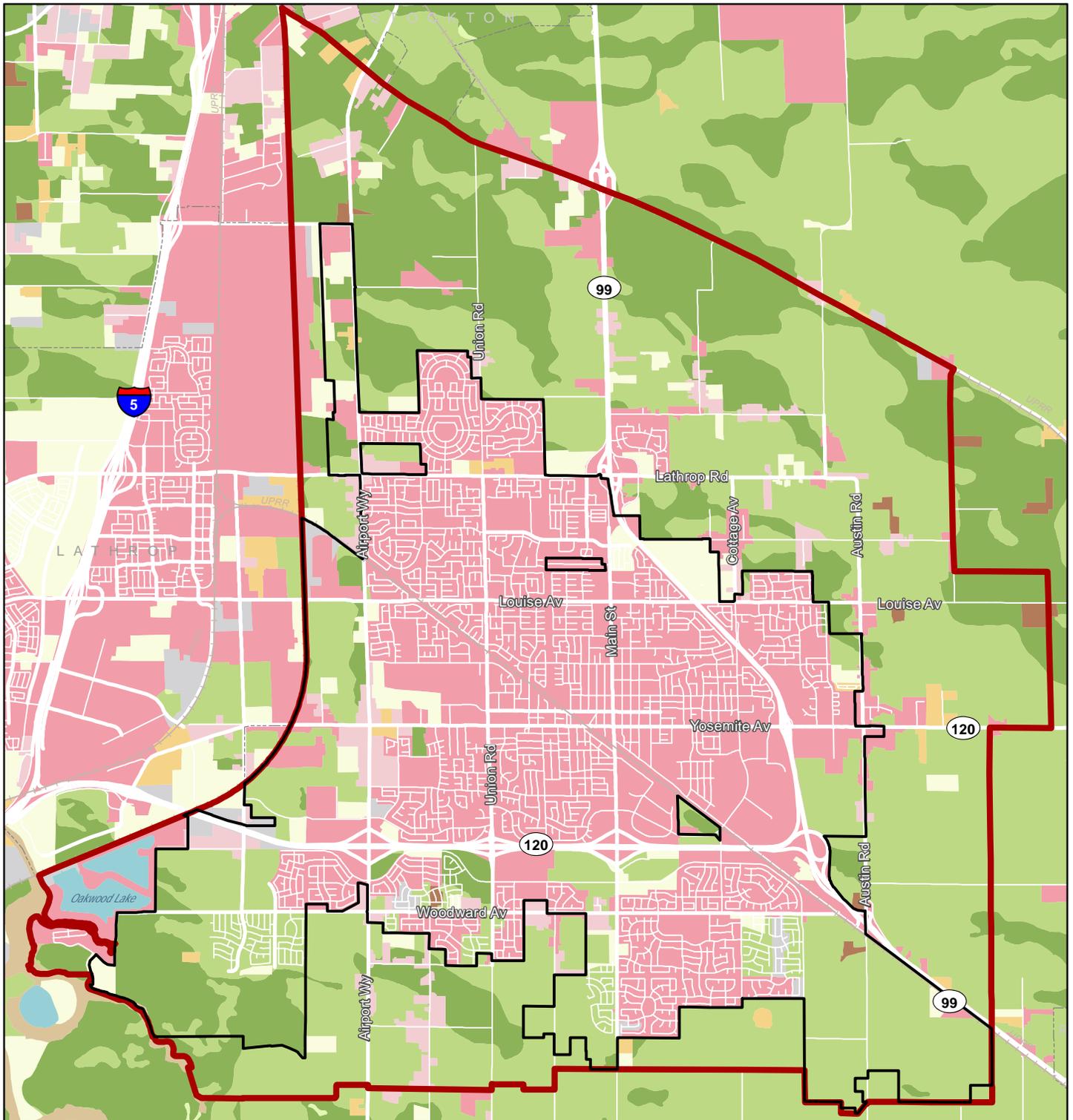
Sources: City of Manteca; San Joaquin County. Map date: April 7, 2021. Revised: August 29, 2022.

CITY OF MANTECA GENERAL PLAN

Figure 5.0-4. Alternative D
Previous Proposed Project (March 2021)



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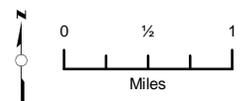


Legend

- | | |
|----------------------------------|---|
| City of Manteca | Nonagricultural or Natural Vegetation |
| Manteca Planning Area | Vacant or Disturbed Land |
| Prime Farmland | Rural Residential Land |
| Farmland of Statewide Importance | Semi-agricultural and Rural Commercial Land |
| Unique Farmland | Urban and Built-Up Land |
| Farmland of Local Importance | Water Area |
| Confined Animal Agriculture | |

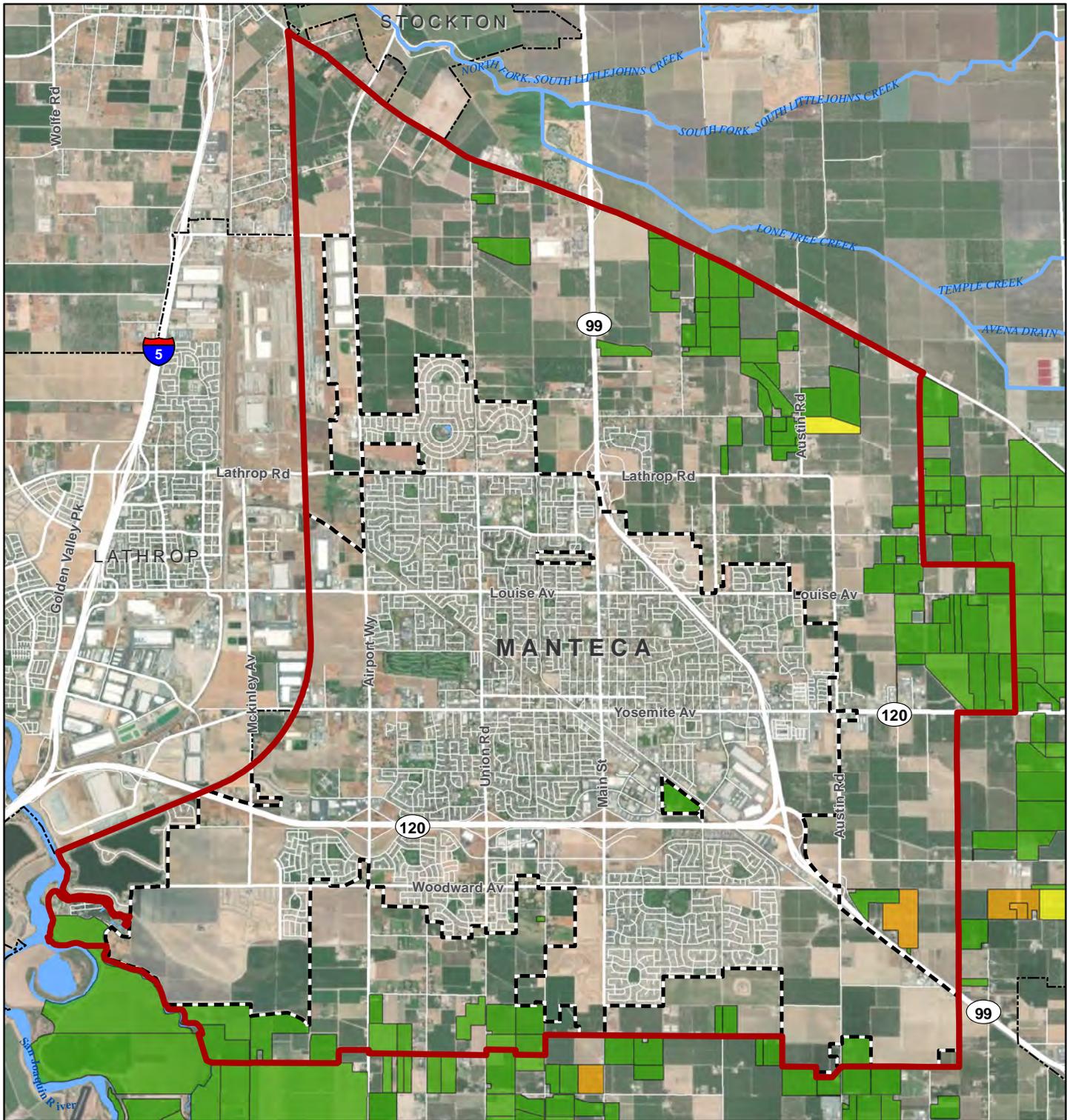
CITY OF MANTECA GENERAL PLAN

**Figure 5.0-5. Important Farmlands
Alternative D**



Sources: City of Manteca; San Joaquin County; California Department of Conservation
Farmland Mapping and Monitoring Program, San Joaquin County 2018. Map date: August 27, 2022.

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Legend

Planning Areas

- Manteca City Limits
- Surrounding Cities
- Manteca Planning Area

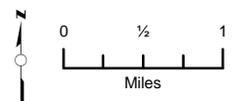
Williamson Act Lands

- Williamson Act Lands
- Williamson Act Lands - Non-Renewal
- Farmland Security Zone

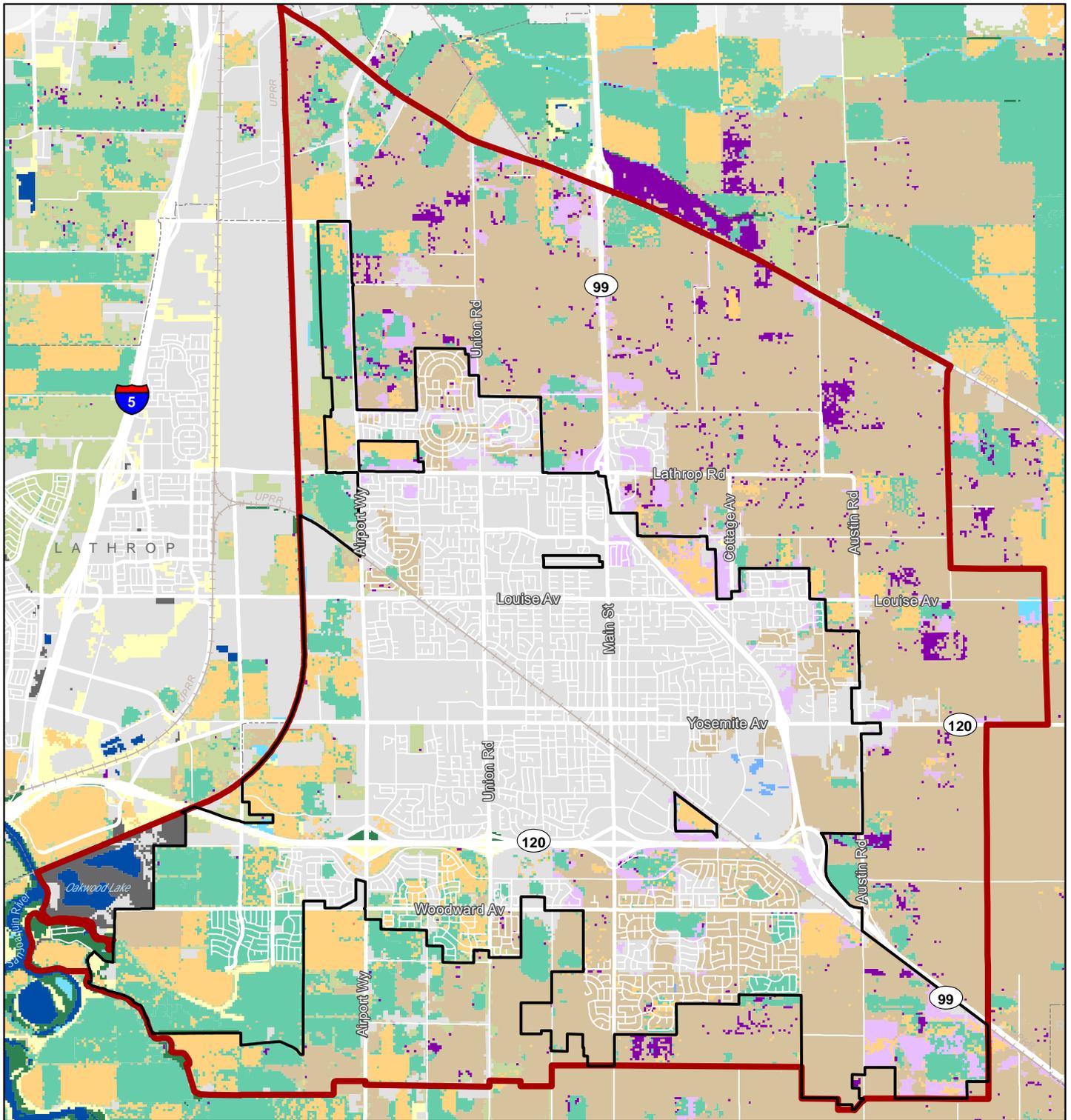
Sources: Williamson Act Lands from City of Manteca, February 2022; San Joaquin County GIS. Map date: August 27, 2022.

CITY OF MANTECA GENERAL PLAN

Figure 5.0-6. Williamson Act Lands Alternative D



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Legend

- City of Manteca
- Manteca Planning Area

Agricultural

- Cropland
- Dryland Grain Crops
- Irrigated Grain Crops, Hayfield, and Row/Field Crops
- Orchard (Deciduous and Evergreen)
- Rice
- Vineyard
- Pasture

Non-Agricultural

- Annual Grassland
- Eucalyptus
- Lacustrine
- Fresh Emergent Wetland
- Riverine
- Valley Foothill Riparian

Other

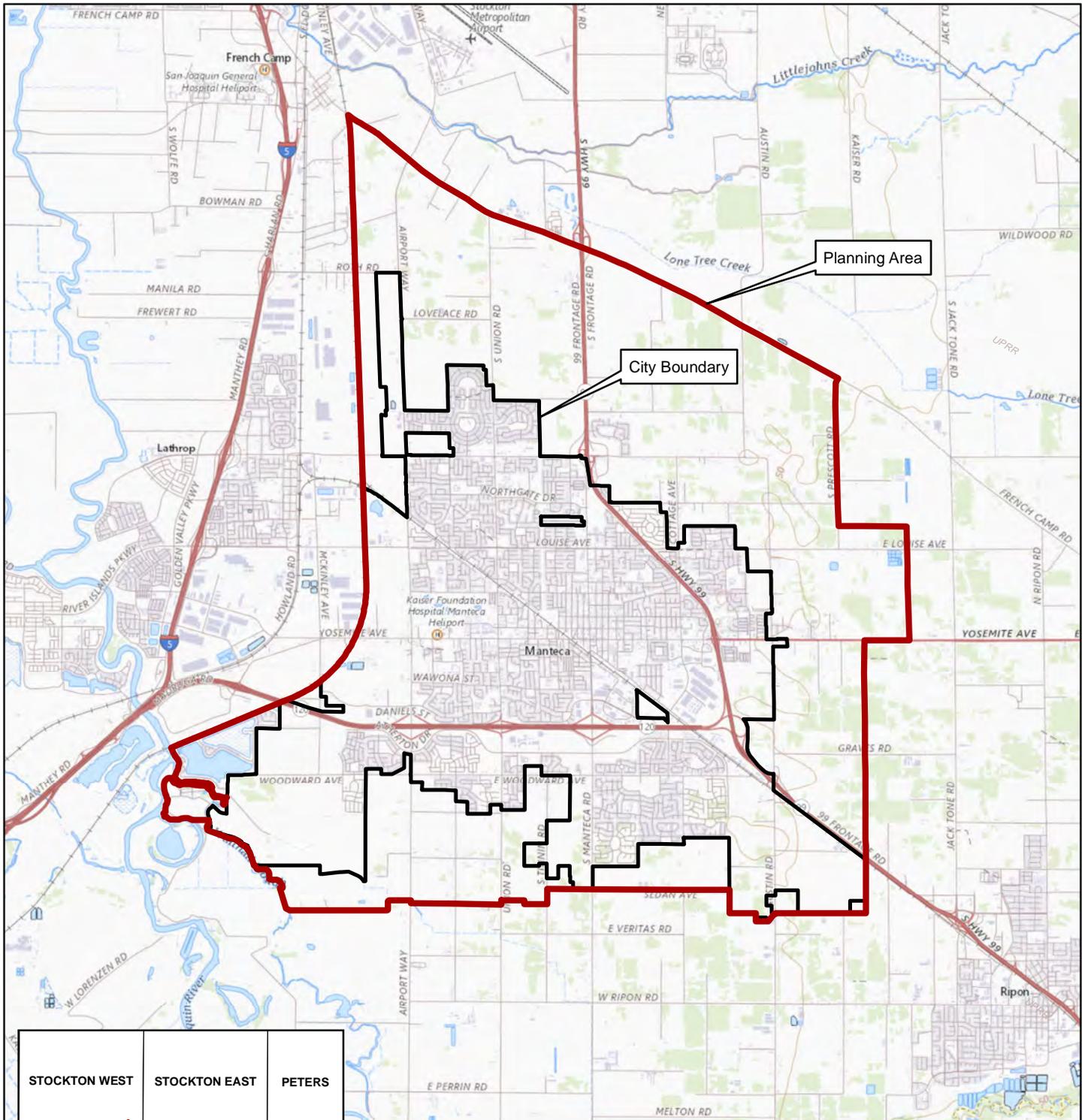
- Barren
- Urban

CITY OF MANTECA GENERAL PLAN

**Figure 5.0-7. Land Cover Types
Alternative D**



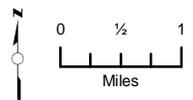
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STOCKTON WEST	STOCKTON EAST	PETERS
LATHROP		AVENA
VERNALIS	RIPON	SALIDA

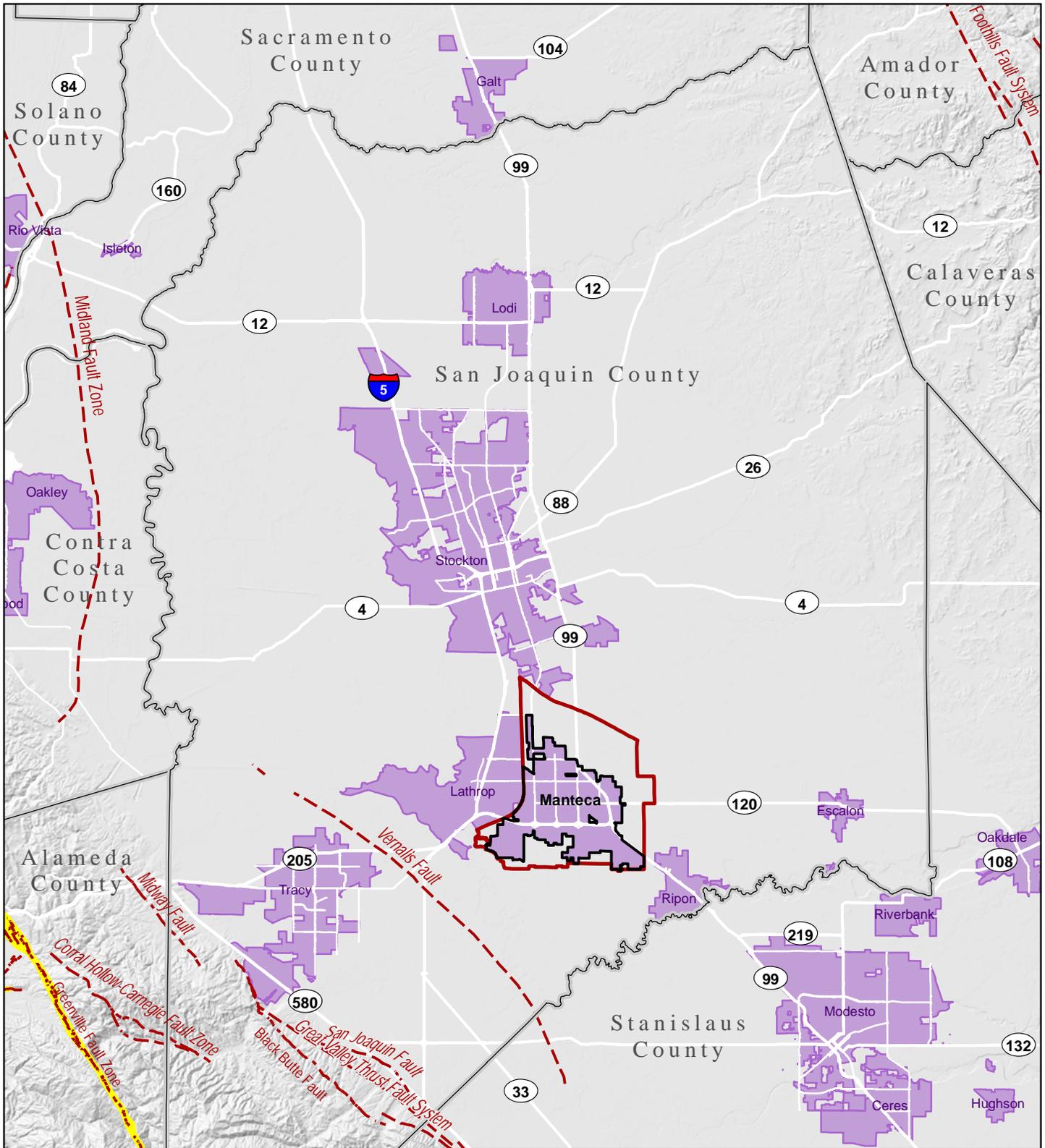
CITY OF MANTECA GENERAL PLAN

Figure 5.0-8. USGS Topographic Map Alternative D



Sources: City of Manteca; San Joaquin County; ArcGIS Online USGS Topo Map (The National Map) Map Service. Map date: August 27, 2022.

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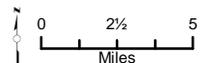


Legend

- - - Quaternary Fault
- Alquist Priolo Fault Zone
- City of Manteca
- Manteca Planning Area
- Incorporated Area
- County Boundary

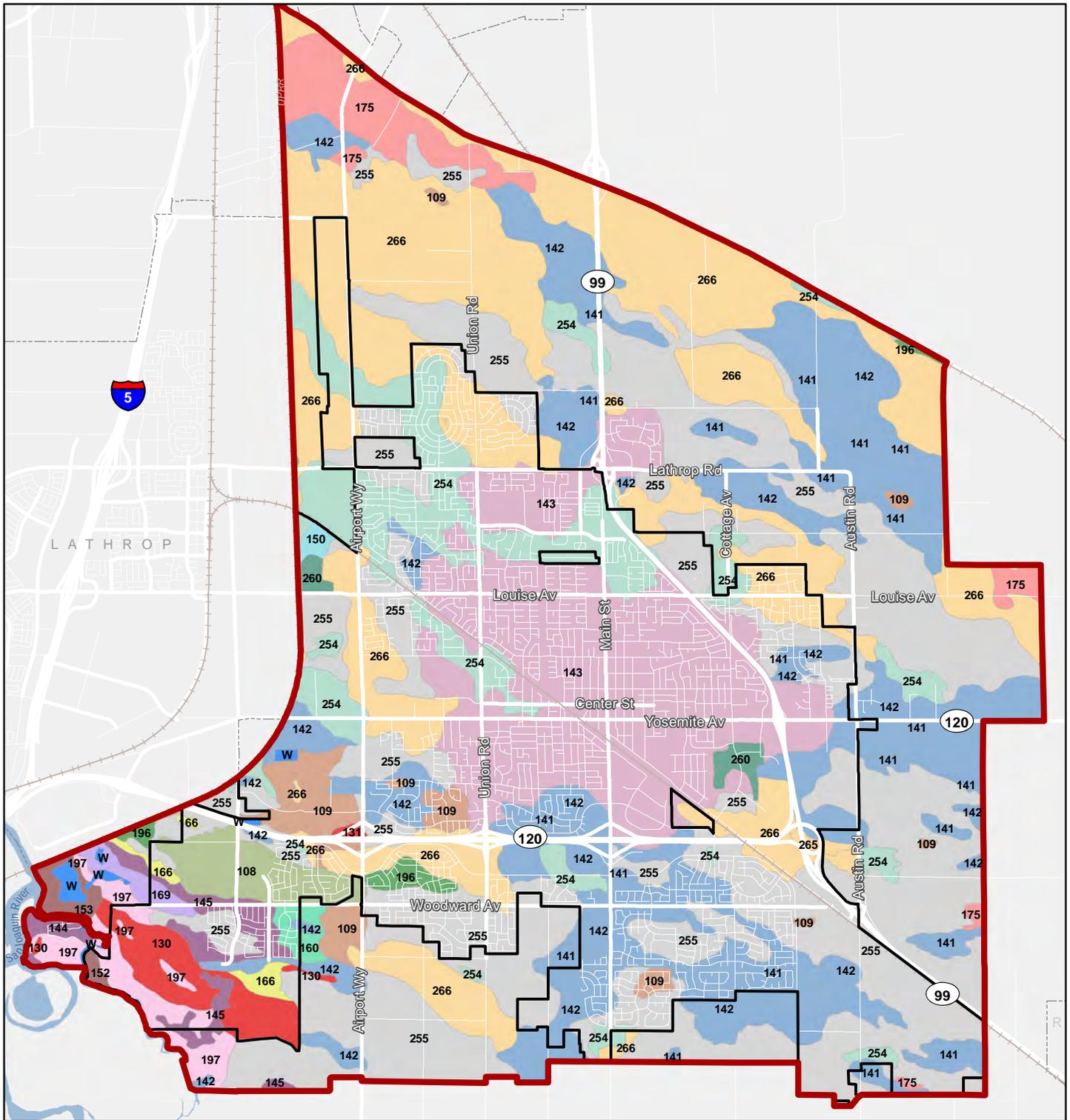
CITY OF MANTECA GENERAL PLAN

**Figure 5.0-9 Earthquake Faults and Alquist Priolo Zones
Alternative D**



Source: San Joaquin County GIS; USGS; California State GeoPortal. Map date: August 27, 2022.

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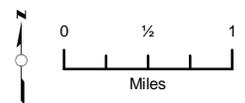


Legend

- City of Manteca
- Manteca Planning
- 108: Arents
- 109: Bisgani loamy coarse sand
- 130/131: Columbia fine sandy loams
- 141/142: Delhi sands
- 143: Delhi-Urban land complex
- 144/145: Dello sands
- 150: Dumps
- 152/153: Egbert clay loams
- 160: Galt clay
- 166: Grangeville fine sandy loam
- 169: Guard clay loam
- 175: Honcut sandy loam
- 196: Manteca fine sandy loam
- 197: Merritt silty clay loam
- 254: Timor loamy sand
- 255: Timor loamy coarse sand
- 260: Urban land
- 265/266: Veritas sandy loams
- W: Water

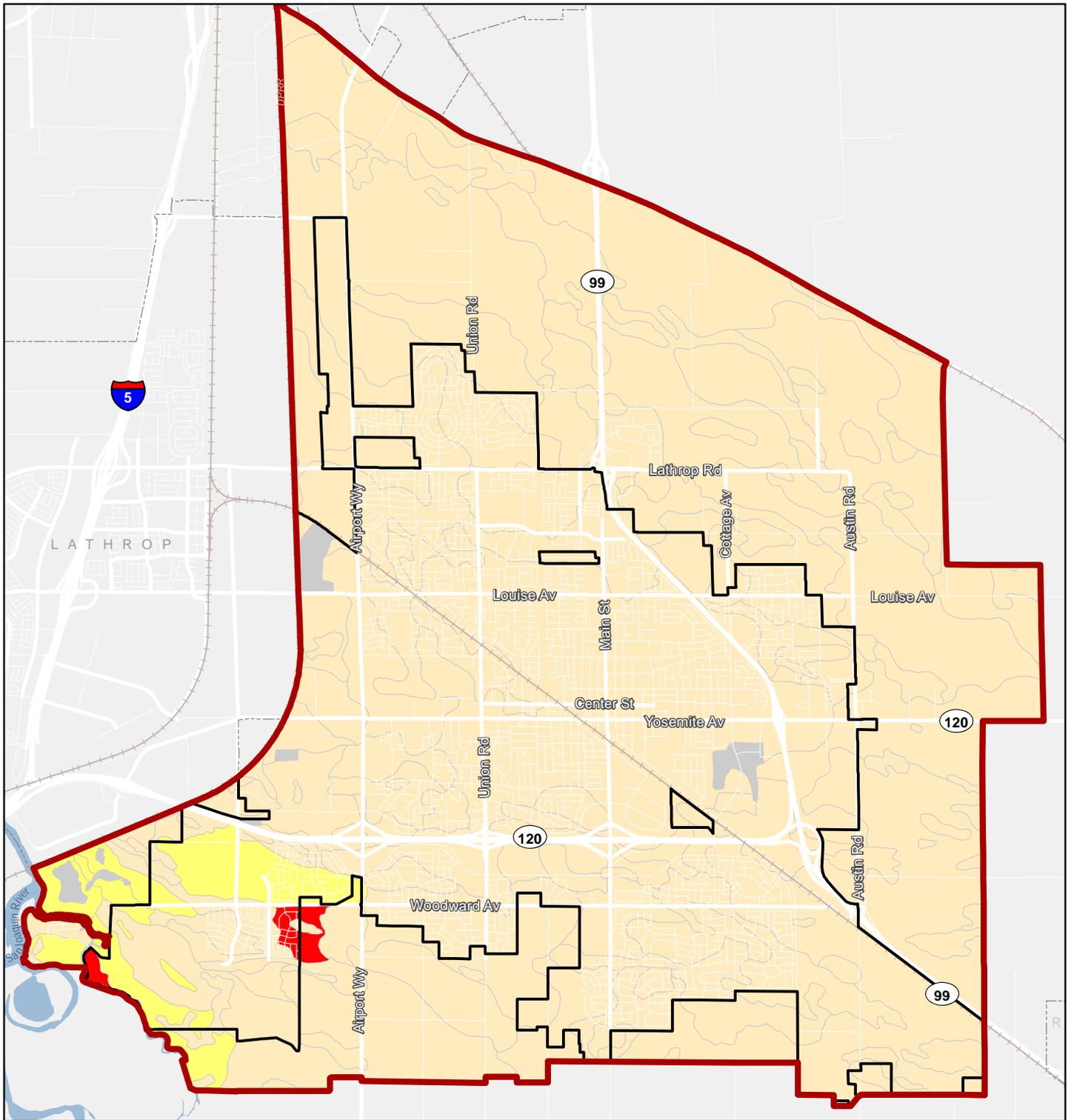
CITY OF MANTECA GENERAL PLAN

Figure 5.0-10. Soils Map Alternative D



Sources: City of Manteca; San Joaquin County; NRCS Web Soil Survey, San Joaquin County, California (CA077), Spatial Version 6, 9-16-2019, Tabular Version 14, 9-9-2021. Map date: August 27, 2022.

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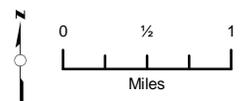


Legend

- City of Manteca
- Manteca Planning Area
- Low Potential
- Moderate Potential
- High Potential
- Not Rated

CITY OF MANTECA GENERAL PLAN

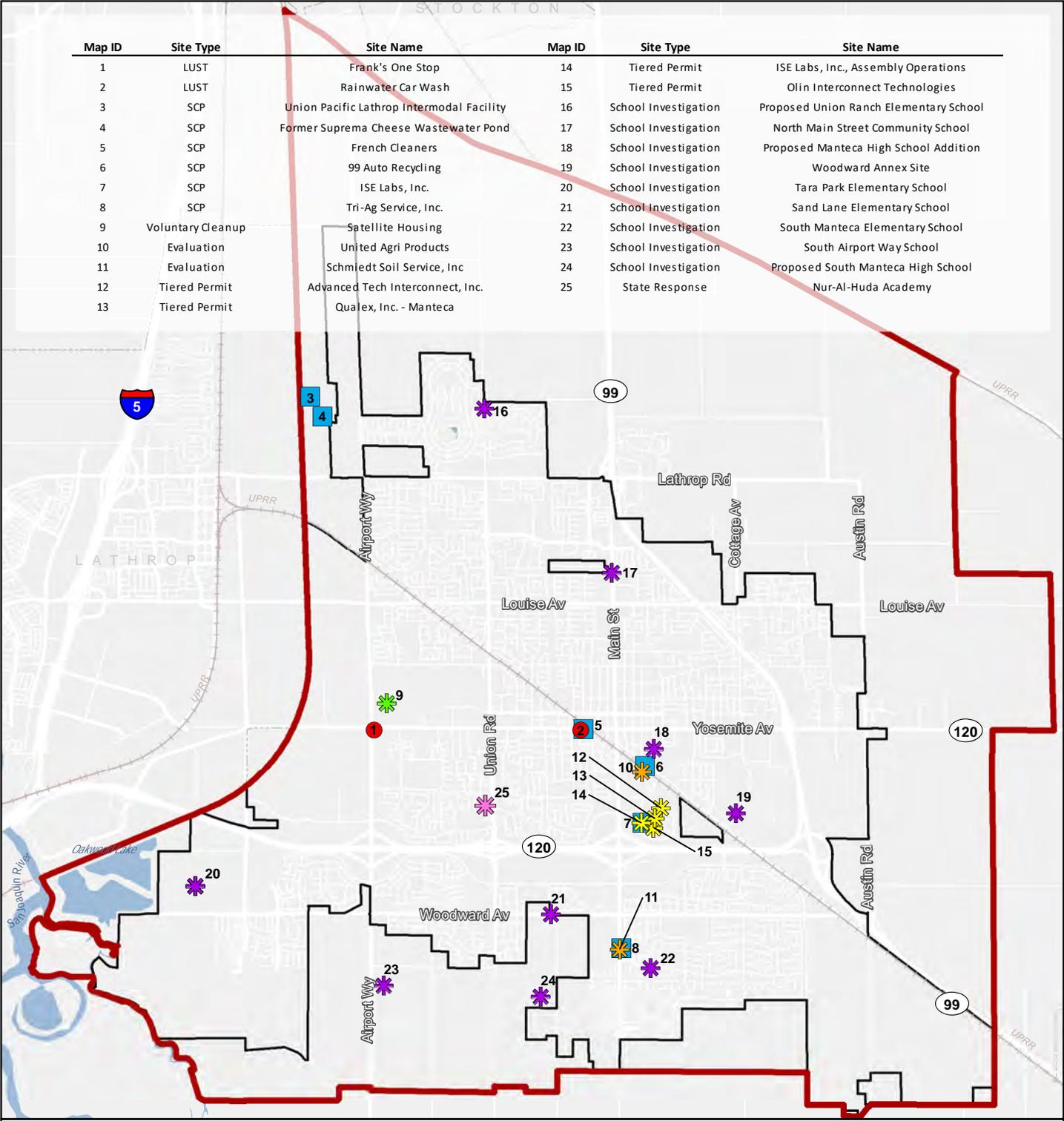
**Figure 5.10-11. Shrink-Swell Potential of Soils
Alternative D**



Sources: City of Manteca; San Joaquin County; NRCS Web Soil Survey, San Joaquin County, California (CA077), Spatial Version 6, 9-16-2019, Tabular Version 14, 9-9-2021. Map date: August 27, 2022.

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Map ID	Site Type	Site Name	Map ID	Site Type	Site Name
1	LUST	Frank's One Stop	14	Tiered Permit	ISE Labs, Inc., Assembly Operations
2	LUST	Rainwater Car Wash	15	Tiered Permit	Olin Interconnect Technologies
3	SCP	Union Pacific Lathrop Intermodal Facility	16	School Investigation	Proposed Union Ranch Elementary School
4	SCP	Former Suprema Cheese Wastewater Pond	17	School Investigation	North Main Street Community School
5	SCP	French Cleaners	18	School Investigation	Proposed Manteca High School Addition
6	SCP	99 Auto Recycling	19	School Investigation	Woodward Annex Site
7	SCP	ISE Labs, Inc.	20	School Investigation	Tara Park Elementary School
8	SCP	Tri-Ag Service, Inc.	21	School Investigation	Sand Lane Elementary School
9	Voluntary Cleanup	Satellite Housing	22	School Investigation	South Manteca Elementary School
10	Evaluation	United Agri Products	23	School Investigation	South Airport Way School
11	Evaluation	Schmiedt Soil Service, Inc	24	School Investigation	Proposed South Manteca High School
12	Tiered Permit	Advanced Tech Interconnect, Inc.	25	State Response	Nur-Al-Huda Academy
13	Tiered Permit	Quallex, Inc. - Manteca			

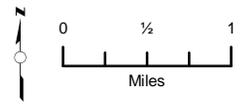


Legend

- City of Manteca
- Manteca Planning Area
- Water Board Site Cleanup Program (SCP) Site
- Leaky Underground Storage Tank (LUST) Site
- Evaluation Site
- School Investigation Site
- State Response Site
- Tiered Permit Site
- Voluntary Cleanup Site

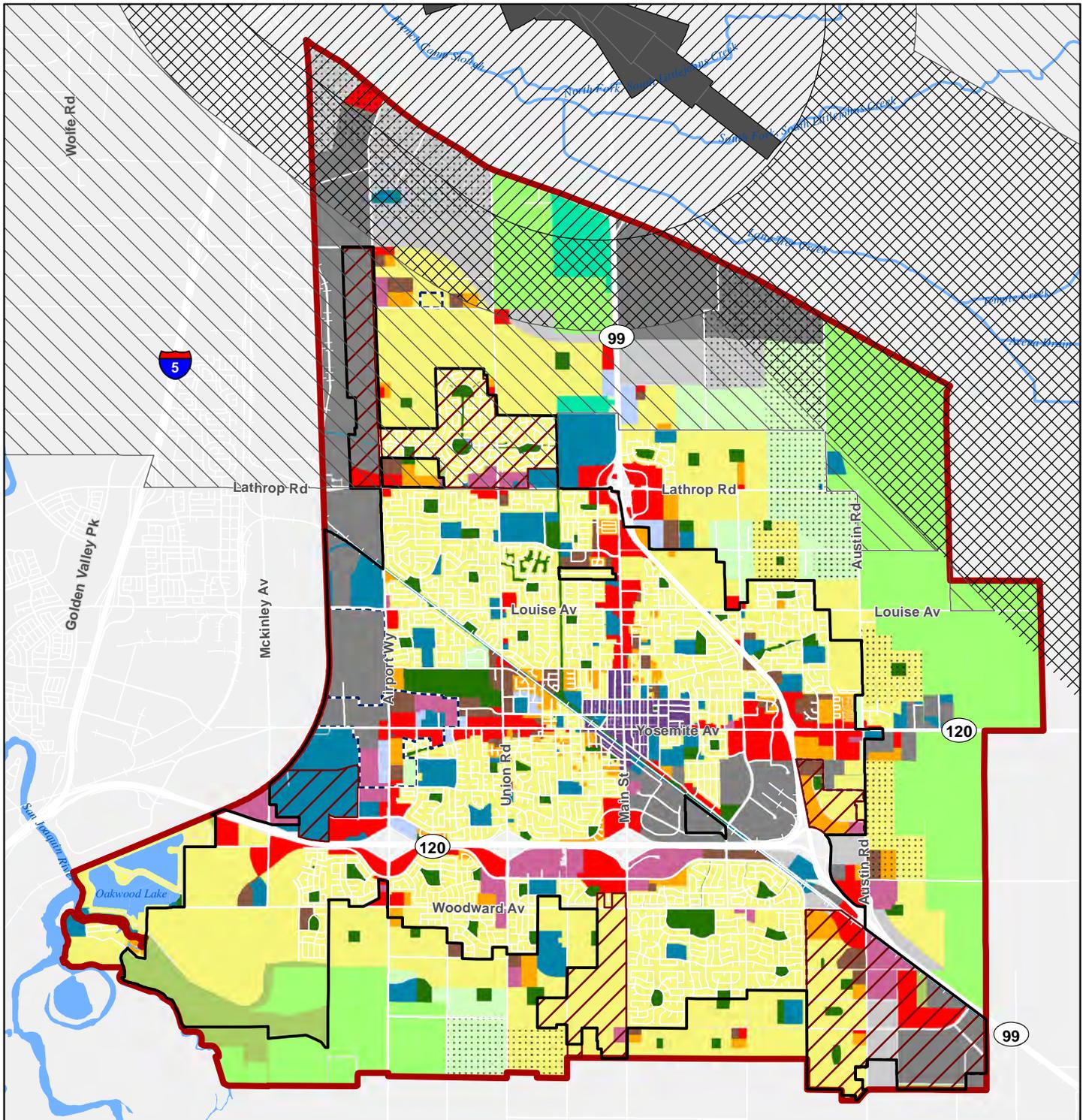
CITY OF MANTECA GENERAL PLAN

**Figure 5.0-12. Hazardous Sites
Alternative D**



Sources: City of Manteca; San Joaquin County; EnviroStor 2-23-2022; GeoTracker 2-23-2022. Map date: August 27, 2022.

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Legend

- Manteca City Limits
- Planning Area
- Policy Area
- Urban Reserve Overlay
- Master/Specific Plan Overlay

Stockton Metropolitan Airport Areas

- Zones 1-6: Runway, Approach, Turning, and Property Zones
- Zone 7a (TPZ): Traffic Pattern Zone
- Zone 7b (TPZ): Traffic Pattern Zone
- Zone 8 (AIA): Airport Influence Area

General Plan Designations

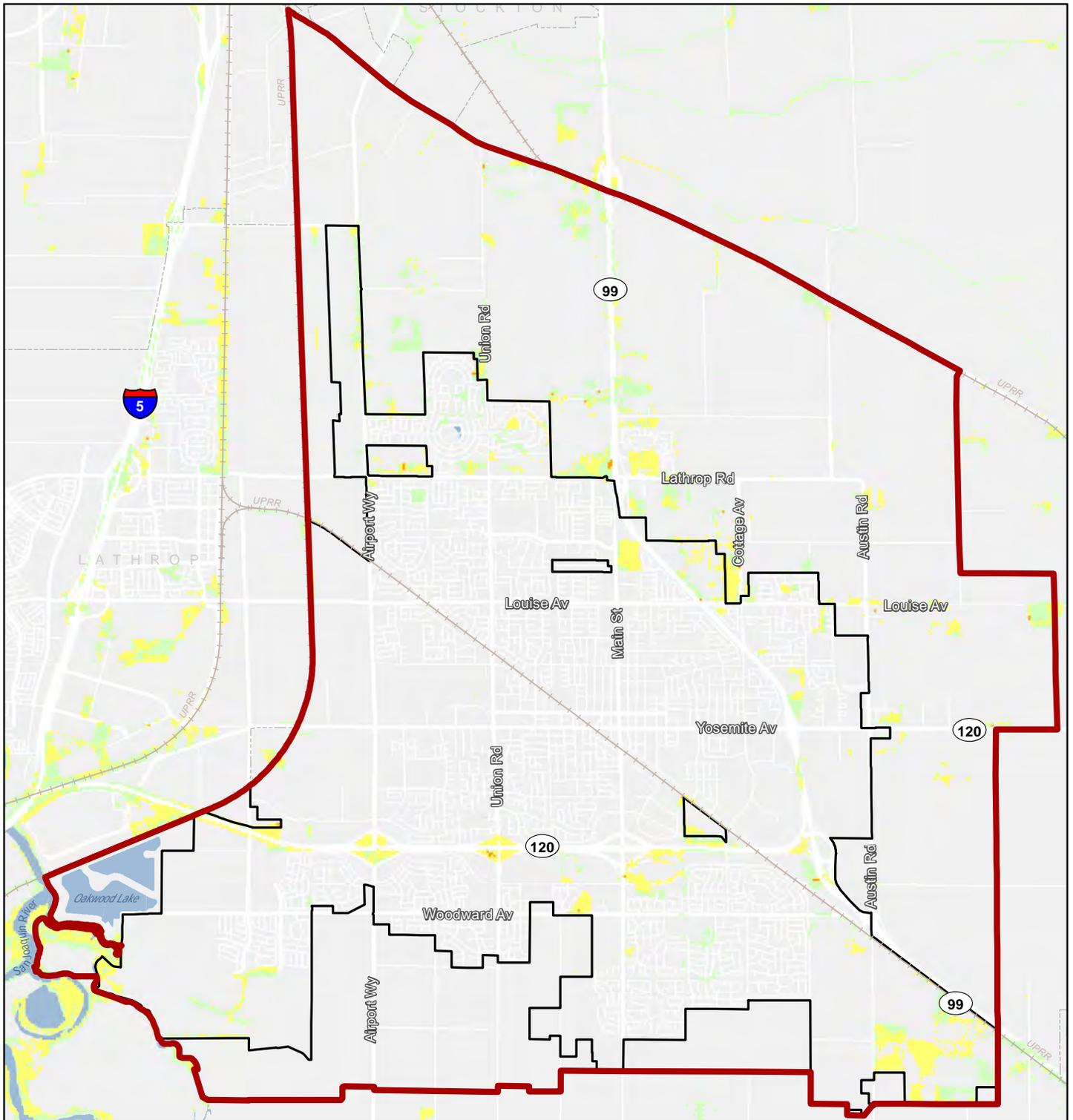
- | | | |
|-------------------------|------------------------------|-----------------------|
| Agricultural Industrial | Very Low Density Residential | Business Professional |
| Agriculture | Low Density Residential | Industrial |
| Commercial | Medium Density Residential | Open Space |
| Commercial Mixed Use | High Density Residential | Park |
| Downtown | Business Industrial Park | Public/Quasi-Public |

CITY OF MANTECA GENERAL PLAN

**Figure 5.0-13.
Stockton Metropolitan Airport
Alternative D**



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Legend

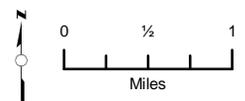
- City of Manteca
- Manteca Planning Area

Threat Class

- Low
- Moderate
- High
- Very High (not within the City or SOI)
- Extreme (not within the City or SOI)

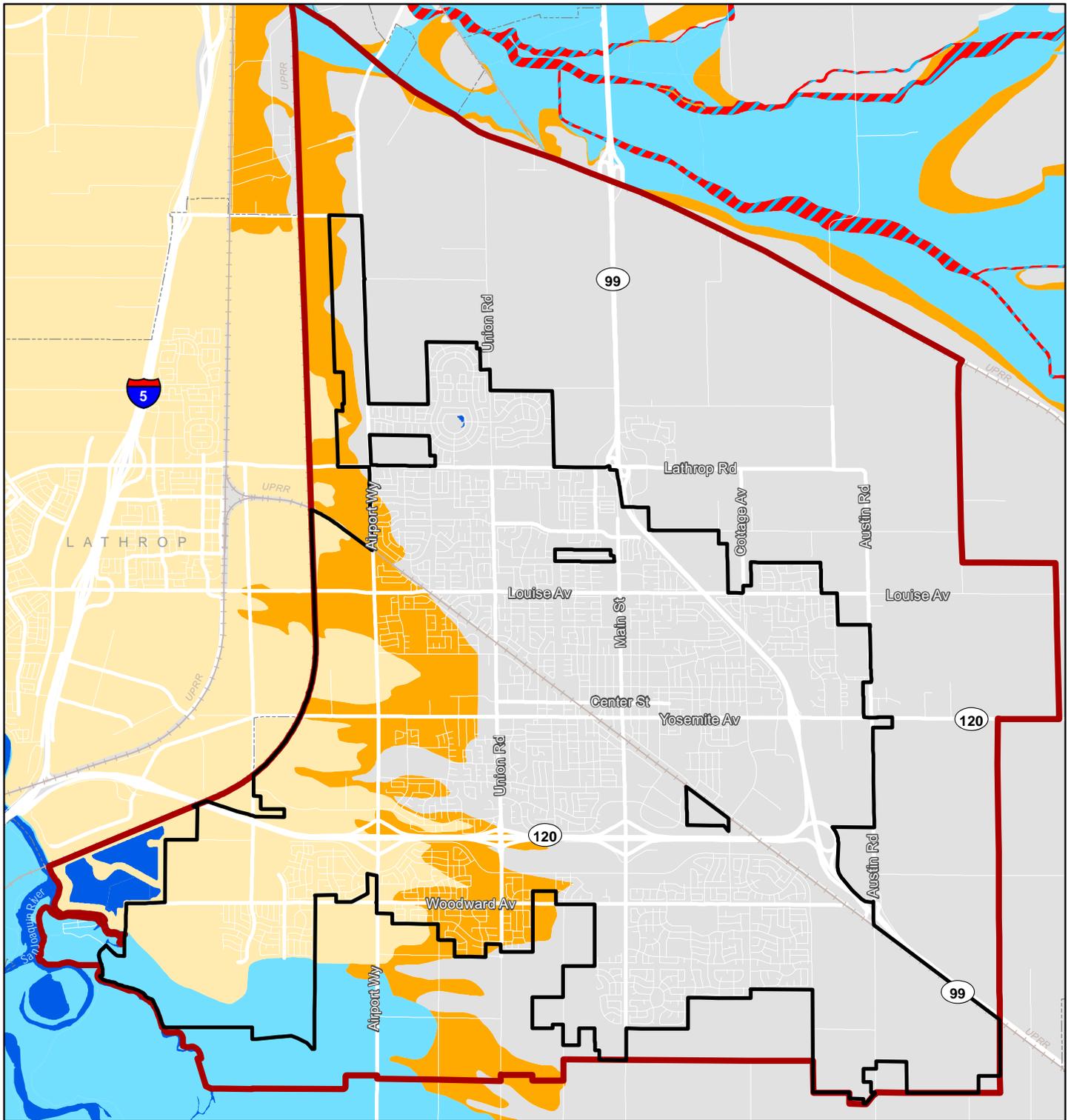
CITY OF MANTECA GENERAL PLAN

**Figure 5.0-14. Fire Threat to People
Alternative D**



Sources: California Department of Forestry and Fire Protection, Fire and Resource Assessment Program (CALFIRE-FRAP) fhrt14_2; City of Manteca; San Joaquin County. Map date: August 27, 2022.

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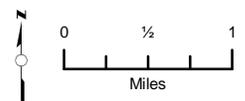


Legend

-  City of Manteca
-  Manteca Planning Area
-  100-year Flood Zone
-  500-year Flood Zone
-  Regulatory Floodway
-  Area of Minimal Flood Hazard
-  Area with Reduced Risk due to Levee

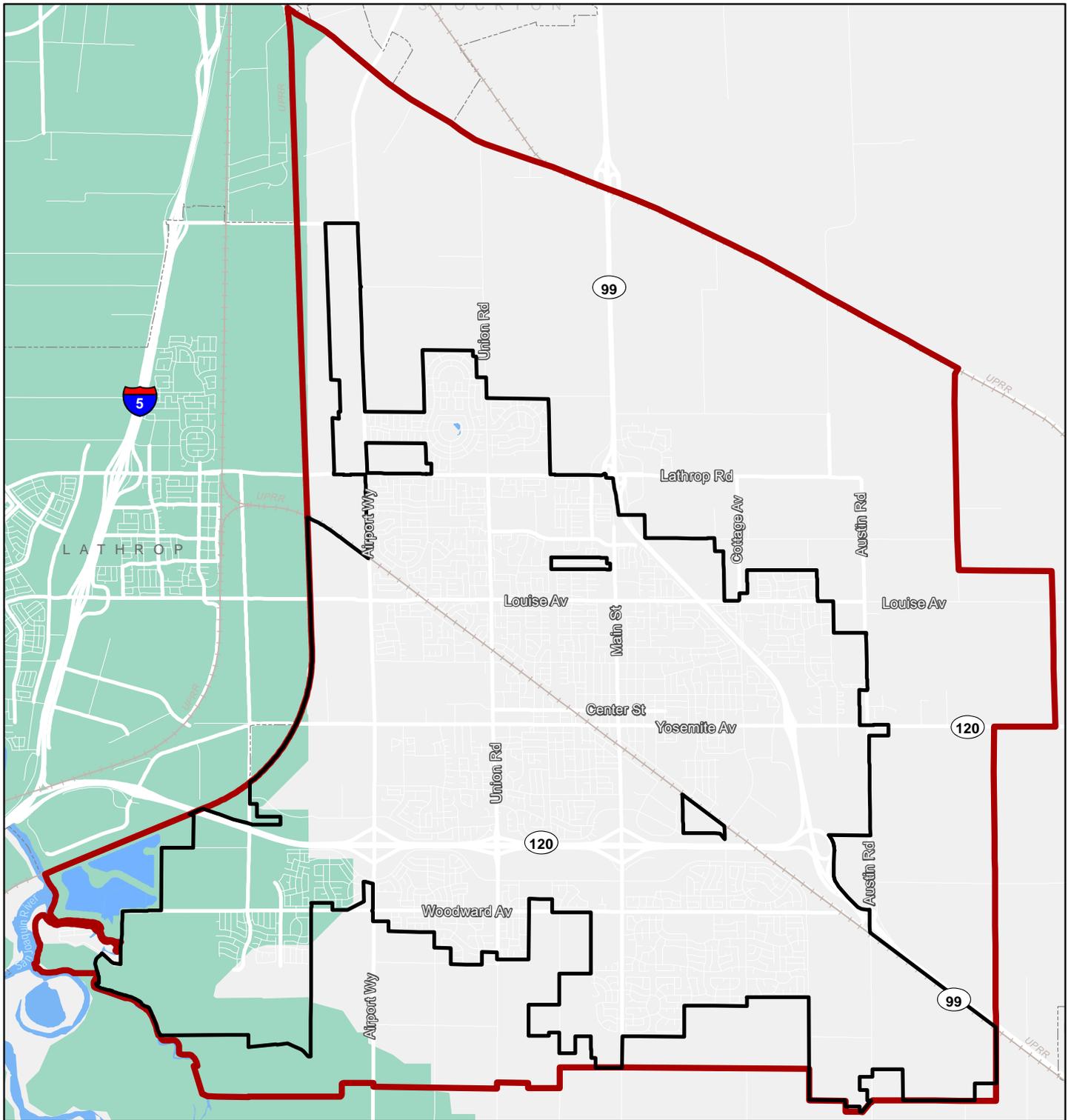
CITY OF MANTECA GENERAL PLAN

Figure 5.0-15. FEMA Flood Zone Designations
Alternative D



Sources: City of Manteca; San Joaquin County; FEMA's National Flood Hazard Layer, 11/18/2021. Map date: August 27, 2022.

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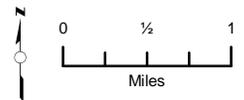


CITY OF MANTECA GENERAL PLAN

Figure 5.0-16. 200-year Floodplain Alternative D

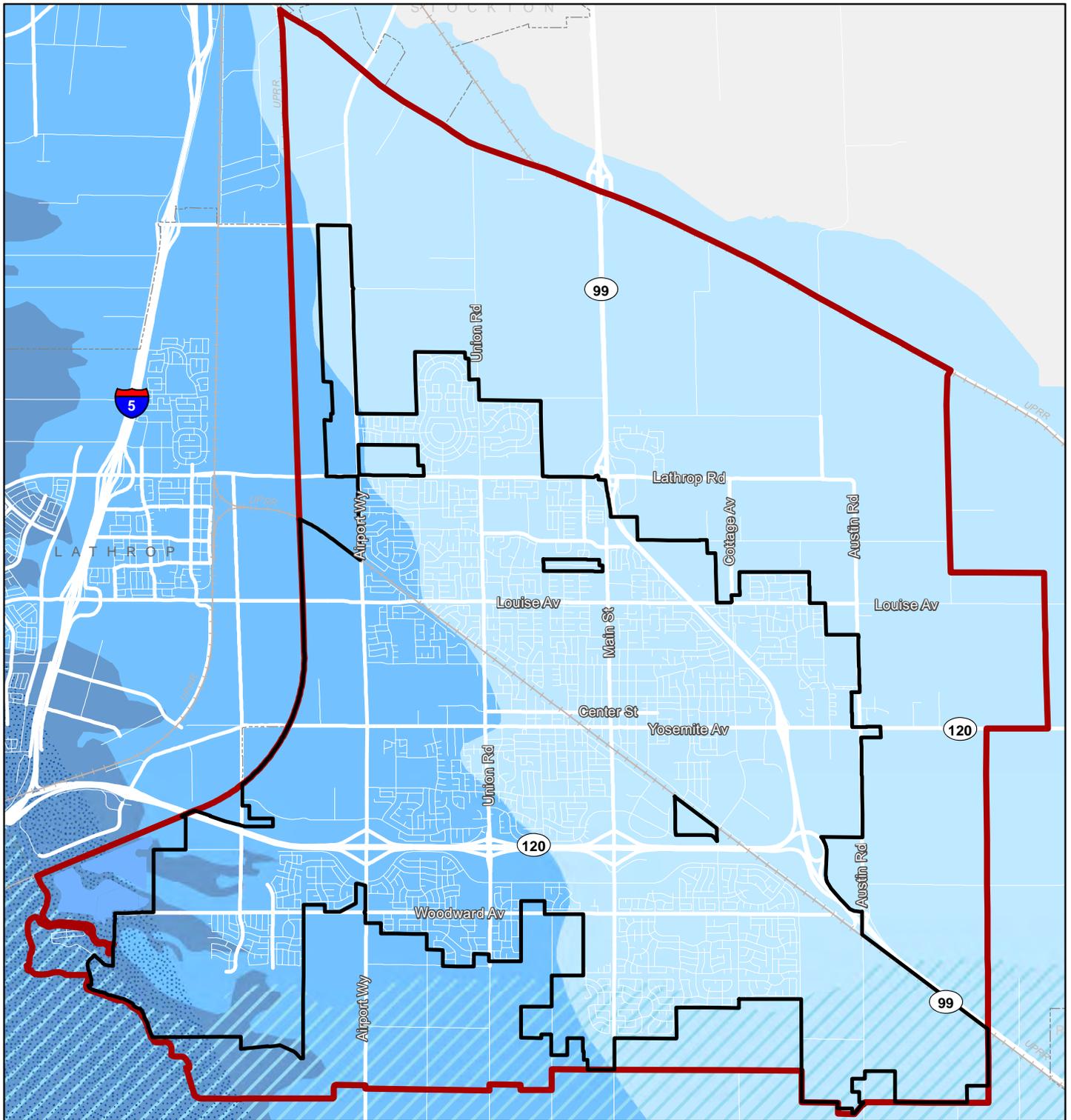
Legend

-  City of Manteca
-  Manteca Planning Area
-  USACE Comprehensive Study 200-year Floodplain



Sources: City of Manteca; San Joaquin County; DWR Best Available Map (BAM) data USACE Comprehensive Study. Map date: August 27, 2022.

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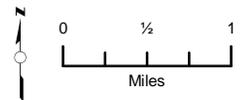


Legend

-  City of Manteca
-  Manteca Planning Area
-  Pine Flat Dam
-  Tulloch Reservoir
-  Lake McClure Reservoir
-  San Luis Reservoir
-  New Melones Dam

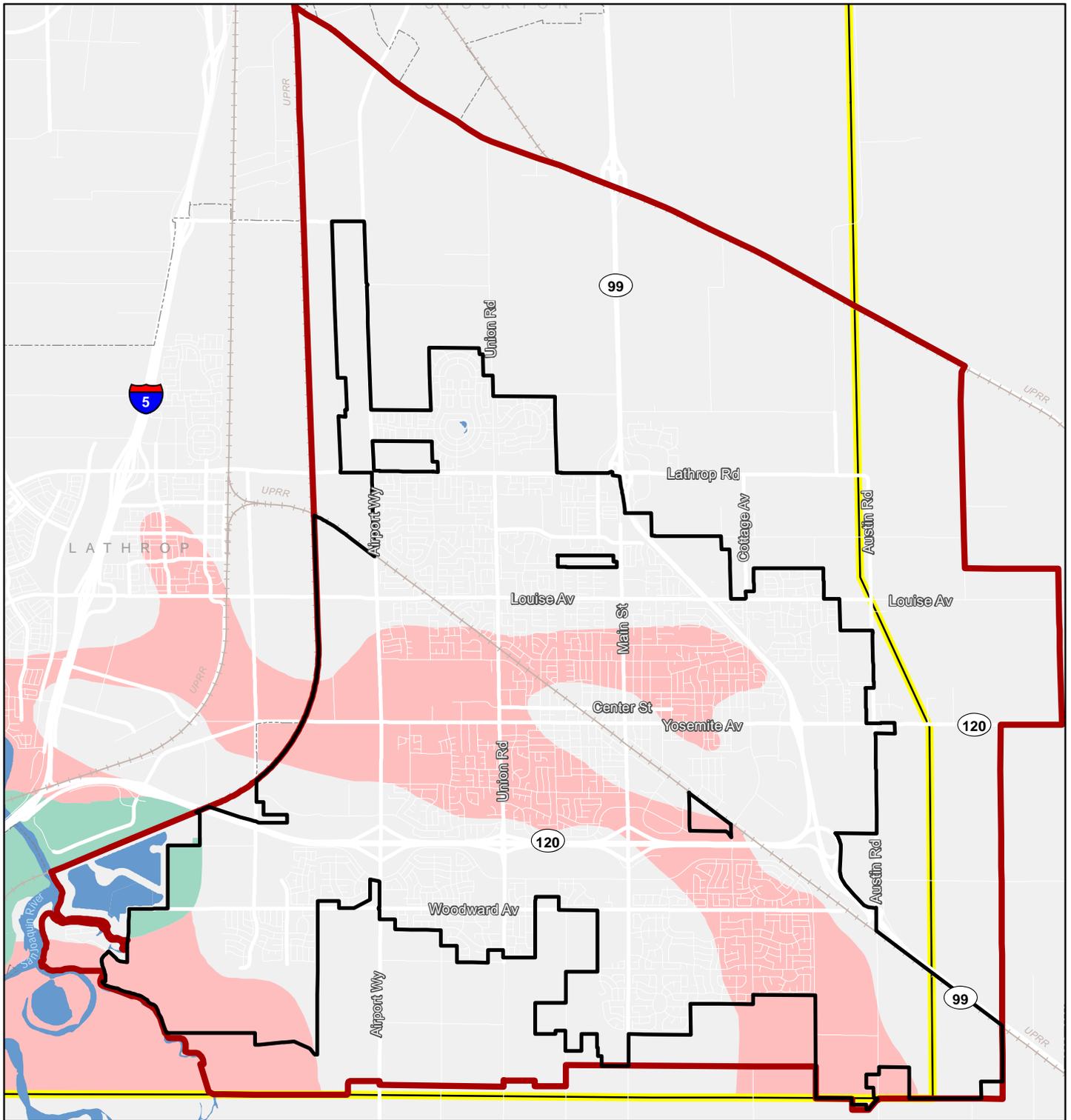
CITY OF MANTECA GENERAL PLAN

Figure 5.0-17. Dam Inundation Areas
Alternative D



Sources: City of Manteca; San Joaquin County; California Office of Emergency Services, Dam Inundation Areas made available via sjmap.org. Map date: August 27, 2022.

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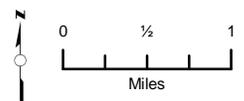


CITY OF MANTECA GENERAL PLAN

Figure 5.0-18. Mineral Resource Zones
Alternative D

Legend

-  City of Manteca
-  Stockton-Lodi Production-Consumption Region Boundary
-  MRZ-2 - Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presences exists
-  MRZ-3 - Areas containing mineral deposits the significance of which cannot be evaluated from available data



Sources: California Geological Survey, Updated Mineral Land Classification Map for Portland Cement Concrete-Grade Aggregate in the Stockton-Lodi Production-Consumption Region, San Joaquin and Stanislaus Counties, CA, Special Report 199-Plate 1, 2012; City of Manteca; San Joaquin County GIS. Map date: August 27, 2022.

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CITY OF MANTECA

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