

CITY OF CORNING

HOUSING ELEMENT UPDATE 2009 – 2014

DRAFT INITIAL STUDY & MITIGATED NEGATIVE DECLARATION

Prepared
For

City of Corning
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TABLE OF CONTENTS

BACKGROUND	1
ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED	14
ENVIRONMENTAL DETERMINATION	14
EVALUATION OF ENVIRONMENTAL IMPACTS	29
AESTHETICS	31
AGRICULTURAL RESOURCES	33
AIR QUALITY	35
BIOLOGICAL RESOURCES	47
CULTURAL RESOURCES	53
GEOLOGY AND SOILS	55
GREENHOUSE GASES	59
HAZARDS AND HAZARDOUS MATERIALS	64
HYDROLOGY AND WATER QUALITY	67
LAND USE AND PLANNING	73
MINERAL RESOURCES	77
NOISE	78
POPULATION AND HOUSING	86
PUBLIC SERVICES	89
RECREATION	91
TRANSPORTATION/TRAFFIC	93
UTILITY AND SERVICE SYSTEMS	99
ENERGY CONSERVATION	103
MANDATORY FINDINGS OF SIGNIFICANCE	107
REFERENCE DOCUMENTS	111
LIST OF PREPARERS	112
ATTACHMENT 1	113
MITIGATION MONITORING PROGRAM	MMP-1
FIGURES	
FIGURE 1 – LOCATION MAP	15
FIGURE 2 – USGS MAP	17
FIGURE 3 – GENERAL PLAN LAND USE MAP	19
FIGURE 4 – ZONING MAP	21
FIGURE 5A – VACANT LAND INVENTORY MAP – WESTERN AREA	23
FIGURE 5B – VACANT LAND INVENTORY MAP – EASTERN AREA	25
FIGURE 6 – ANNEXATION AREA	27

BACKGROUND

1. **PROJECT TITLE:** City of Corning Housing Element Update 2009 – 2014
2. **LEAD AGENCY, PROJECT PROPONENT AND CONTACT PERSON:** City of Corning (City). 794 Third Street, Corning CA 960213. Mr. John Stoufer, Planning Director (530)824-7036, Fax (530) 275-3043, E-Mail – jstoufer@corning.org
3. **APPLICANT/PROJECT PROPONENT:** City of Corning
4. **PROJECT LOCATION:** The City of Corning, California is a rural agricultural community of 7,396 people situated 25 miles northwest of Chico and 17 miles south of Red Bluff in south central Tehama County (**Figure 1**).¹ The physical layout of the City was established in 1878, when the town named Scatterville, later Riceville, was built. In 1882, the town of Corning was established and merged with Riceville. Since that time, the City and adjacent agricultural areas have seen a slow to moderate increase in population growth. In the past, the population has been distributed as a small nucleus in the incorporated urbanized areas, surrounded by a larger non-urbanized halo in the unincorporated areas.²

The City is located in Sections 14, 15, 16, 21, 22, 23, 27 and 28, T. 24 N., R. 3 W., Mount Diablo Base and Meridian, of the USGS 7.5' Corning, California Topographic Quadrangle. The Sphere of Influence (SOI) encompasses some of the above Section in addition to Sections 2, 9, 10, 12, 13, 24, and 26. A 260 acre area within the SOI immediately adjacent to the northern City limits abutting Interstate 5 (I-5) to the west is located in Sections 15 and 16.

Major access to the City from the west is I-5 via the South Avenue and Solano Avenue interchanges. Access from the east is via State Route 99E to South Avenue which eventually merges so that South Avenue where it splits turns into Hoag Avenue before becoming Solano Street at the easterly City Limit line, or one can continue westerly along South Avenue.

California Northern Railroad (CNFR) has a rail line running in a north-south direction through the central part of the City abutting 99W and Third Avenue. CNFR interchanges with the Union Pacific Railroad and provides daily and scheduled service for major commodities which are food related being tomato products, olives, rice, cheese, frozen foods, beer, wine and wheat with some stone, petroleum products, and chemicals.

The Corning Municipal Airport is located one mile northeast of the Solano Avenue. The *Comprehensive Airport Land Use Plan*, adopted in 2003, identifies two airport safety zones. The Clear Zone Safety Area allows no residential development within its boundaries. Within the boundaries of the Approach Zone Safety Area, no residential development is permitted within 2,000 feet of the Clear Zone, and low density residential development is allowed at a density of 3.5 dwelling units per acre.

Elevations in the City range from approximately 275 mean sea level (MSL) in the northern central portions of the City to approximately 265 MSL in the southeast area of

¹ California Department of Finance Data for population figures – January 1, 2009.

² Eco-Analysts. *Municipal Service Review of the City of Corning, Tehama County, California*

the City. Elevations within the SOI range from 300 in the northwestern area of the City to 255 feet MSL in the southeast. There is a ridge area abutting the eastern portions of the City with elevations in the 300 to 325 foot range. Within the area to be rezoned and annexed, elevations range from 290 to 275 feet MSL in a west to east direction.

Jewett Creek, an intermittent creek, is located south of the City and north of Burch Creek, a perennial creek. Both creeks flow in a southeastern direction and are tributary to the Sacramento River which is approximately three and one-half miles east of the City. The Balckburn Moon Drain flows from the CNFR tracks in a southeasterly direction in the eastern portion of the City (**Figure 2**).

5. **GENERAL PLAN DESIGNATION AND ZONING:** The Land Use Element of the City's General Plan sets forth the City's policies for guiding local development. These policies, together with existing zoning, establish the amount and distribution of permitted land uses within each zone, and sets forth development standards with which the permitted land uses must comply.

General Plan – The City's General Plan states the objective of the Land Use Element is to promote the best use of land through protection of desirable existing uses, orderly development, and consideration of the City's future needs. **Table 1** identifies the various General Plan Land Use classifications and associated acreages and percentages based on the May 24, 1994 *Corning General Plan*. **Figure 3** identifies the *General Plan Land Use Map*. It should be noted that the *Map* identifies the Multi-Family Residential land use; however, **Table 1** from the *General Plan* and below does not.

TABLE 1 General Plan Land Use Classifications		
Land Use District	Gross Allowable Density	
	Acres	Percentage
Residential	494.8	28.0
Commercial	177.6	10.0
Industrial	39.2	2.0
Aviation	10.8	0.6
Agriculture ¹	549.0	31.0
Public Services/Utilities	180.7	10.0
Floodplain	290.7	17.0
Total	1,743.0	100.0

¹ Includes rural residential

Zoning – Residential development is permitted in accordance with the Zoning Ordinance, under the districts shown in **Table 2**. Zoning designations for the City are identified in **Figure 4**.

6. **SURROUNDING LAND USES AND SETTING:**

The incorporated area of the City consists of 3.55 square miles, or 2,270 acres, primarily located east of I-5. Land uses present within this area cover a broad spectrum of use, including residential, commercial, industrial, aviation, agriculture, rural residential, public service/utility, floodplain, and vacant property. The Tehama County Local Agency Formation Commission (LAFCo) established Sphere of Influence (SOI) encompasses 7.22, square miles or 4,620 acres contiguous to the City limits on nearly all sides of the City. LAFCO expanded the City's SOI in 2005 by an additional 4.6 square miles, or 2,950 acres. The SOI is currently composed primarily of agricultural or rural residential uses (**Figures 3 and 4** also identify the SOI boundaries).

TABLE 2 Zoning Districts and Densities		
Land Use District	Gross Allowable Density	
	Square Feet Per Unit	Maximum Units Per Acre
Single-Family Residence (R-1)	6,000 – 7,000 ¹	7
Single-Family Residence (R-1-2)	6,000 ²	14
Single-Family Residence (R-1-8)	8,000	5
Single-Family Residence (R-1-10)	10,000	4
Two-Family Residence (R-2)	6,000 ³	14
Neighborhood Apartment (R-3)	1,500 ⁴	28
General Apartment (R-4)	1,500 ⁵	28
Planned Development (PD)	6,000 ⁵	Varies

¹ Corner lots require a minimum 7,000 square feet of lot area. Mobile/manufactured homes are permitted.

² One two-family dwelling unit (duplex) is subject to use permit approval by the Planning Commission.

³ One two-family dwelling unit (duplex) is permitted on a minimum lot size of 6,000 square feet. A triplex is allowed with a minimum 9,000 square feet of lot area.

⁴ Applied in areas where high density development of homes and apartments is desirable. Minimum lot size of one acre.

⁵ Applied in areas where group dwellings and apartments are desirable. Minimum lot size of one acre.

⁶ Allows all uses permitted in the R, C, and M districts subject to use permit approval by the Planning Commission. R district uses require a minimum building site area of 6,000 square feet.

As previously noted, the City, is a rural agricultural community situated 25 miles northwest of Chico and 17 miles south of Red Bluff in south central Tehama County. The City and adjacent agricultural areas have seen a slow to moderate increase in population growth.

The State of California Department of Finance identifies the population of the City of Corning as of January 1, 2009 to be 7,396. The average overall growth rate is approximately 1.08 percent per year.

The 2000 Census recorded 2,618 housing units in the City. The State Department of Finance has estimated the total number of housing units, as of January 1, 2009, to be 2,922, an increase of 308, or an 11.6 percent increase in housing units over the past 9 years. The housing increase has kept pace with the approximate 9.2 percent increase in population during the period of time.

Active earthquake faults can be found throughout California; however the City is located in an area that is considered to be relatively free of seismic hazards in the immediate vicinity. The most significant seismic activity that can be anticipated in the area is ground shaking generated by seismic events on distant faults. The closest of which is the Elder Creek Fault, which lies approximately five miles to the southwest. There is no evidence of a “potentially active fault,” located in the area, which could result in significant damage to structures and associated infrastructure.

Noise exposure at the available housing sites in the City can be considered a potential constraint to the development of residential housing. There is an active, municipal airport in the northern central portion of the City; however the traffic patterns of the airport are designed to avoid flying over the city limits. Also extending within the western edge of the City is I-5 which is a major source of ambient noise. Trains are another major source of ambient noise that may act as a constraint to housing development since California Northern Railroad (CNFR) has a rail line running in a north-south direction through the central part of the City. CNFR interchanges with the Union Pacific Railroad and provides daily and scheduled service for major commodities

which are food related being tomato products, olives, rice, cheese, frozen foods, beer, wine and wheat with some stone, petroleum products, and chemicals. However, service is not as frequent as Union Pacific which also accommodates passenger service via AMTRAC. Adherence to Uniform Building Code requirements for acceptable interior noise thresholds and the utilization of noise attenuation mechanisms such as building siting and berm/solid wall construction will minimize noise impacts to acceptable levels.

The undeveloped, general planned and residentially zoned land in the City will be unable to adequately meet local housing needs over the next five years and existing vacant lands within the City will need to be redesignated and reclassified to residential uses and also higher residential densities. However, many of these vacant sites are infill sites with direct access to infrastructure and with minimal natural resource environmental constraints from cultural resource, biological and wetland resources. Due to the relatively level topography of these existing sites, erosion and in turn, water quality issues are minimized with use of Best Management Practices (BMPs).

Those areas proposed for annexation are located in areas adjacent to the City that have access to adequate infrastructure to meet the need of new residential development. Contained within are large parcels that, with the installation of the proper infrastructure, will be able to not only support the projected population of the City for many years to come, but will also assist in meeting affordable housing needs, in particular for Very Low and Low income households. Potential environmental issues are either relatively minor or can be readily mitigated and do not result in a constraint to the development of housing in the City.

- 7. PROJECT PURPOSE, NEED, AND DESCRIPTION:** The Housing Element is an update of the City's previous Housing Element, adopted by the City Council on May 24, 2005 and certified by the State of California Department of Housing and Community Development (HCD) in July 2005. The City has made a concerted effort to follow through on the policies and programs in the Housing Element, and to further expand and more efficiently respond to its housing needs in coordination with other City goals.

A Housing Element provides an analysis of the community's housing needs for all income levels, and strategies to respond to those needs. It is a key part of the City's overall General Plan. Planning and providing housing for all Californians is considered by the state legislature to be of vital statewide importance. The state has enacted legislation that sets forth rules regarding housing elements (contained in California Government Code Sections 65580-65589). The statewide goal is given as "decent housing and a suitable living environment for every California family." The substantive requirements for a housing element are set forth in Article 10.6 and §65583 of the California Government Code.

"The housing element shall consist of an identification and analysis of existing and projected housing needs and a statement of goals, policies, quantified objectives, and scheduled programs for the preservation, improvement, and development of housing. The housing element shall identify adequate sites for housing, including rental housing, factory-built housing, and mobile-homes, and shall make adequate provision for the existing and projected needs of all economic segments of the community."

All cities and counties have responsibilities to contribute to the attainment of that state goal. Each jurisdiction's housing element is required to demonstrate how the goal will

be furthered locally. Housing elements are required to contain analyses of local housing needs and resources (including funds and sites), and elements must make adequate provision for the existing and projected needs of all economic segments of the community.

State Law establishes detailed requirements and a regional “fair share” approach to distributing housing needs. State Housing Element law recognizes that in order for the private sector to address housing needs and demand, local governments must adopt land-use plans and implementing regulations that provide opportunities for, and do not unduly constrain, housing development.

State law requires each city and county to adopt a general plan containing at least seven elements including a housing element. Rules regarding Housing Elements are found in the California Government Code Sections 65580-65589. Unlike the other mandatory general plan elements, the housing element is required to be updated every five years and is subject to detailed statutory requirements and mandatory review by a State agency — HCD (Department of Housing and Community Development).

According to State law, the Housing Element must:

- Provide goals, policies, quantified objectives and scheduled programs to preserve, improve and develop housing
- Identify and analyze existing and projected housing needs for all economic segments of the community.
- Identify “adequate sites” that are zoned and available within the 7.5 year housing cycle to meet the city’s fair share of regional housing needs at all income levels
- Be “certified” by the State Department of Housing and Community Development (HCD) as complying with state law.
- Be internally consistent with other parts of the General Plan (and is critical to having a legally adequate General Plan)

By law (Government Code 65300.5), the goals and policies of the Housing Element must be consistent with other elements of the General plan. The current Elements of the *City of Corning General Plan* (Land Use, Housing, Recreation, Open Space & Conservation, Circulation, Noise, Safety, Seismic, and Scenic Route) are internally consistent regarding stated goals and policies. Internal consistency between Elements will be monitored and maintained as part of the review process at such time any of the various individual Elements are updated or otherwise revised. The goals, policies, and objectives of this update to the Housing Element are reflective of the goals and policies contained in the other elements of the City of Corning General Plan.

The *Housing Element Update* recommends several policies which will result in amendments to the *Land Use Element of the General Plan*, land use classifications, and *Zoning Code* district designations. The *Housing Element Update* calls for the following actions that could result in potential impacts on the man-made and natural environment.

Mixed Use General Plan Land Use Designation (HP-3): This new land use classification allows for a greater variety of uses and flexibility in site planning than is generally permitted in other classifications. The intent of the Mixed Use classification is to allow the creation of a mix of land uses in a compact pattern that will reduce dependency on the automobile and basin air quality impacts and promote high-quality, interactive neighborhoods. Mixed-use neighborhoods are

characterized by interconnected streets, vertical and/or horizontal mix of commercial, residential, and possibly light industrial uses and facilities that encourage pedestrian activity and transit accessibility.

This policy calls for amendment of the general plan to establish a new "Mixed-Use" land use classification and the mapping of specific sites. Also the Zoning Ordinance shall be amended to provide for the "Mixed Use" classification and the rezone specific sites.

General Plan Consistency (HP-4): Amend Tehama County General Plan land use designations within the City's Sphere of Influence for consistency with the City's proposed land use designations.

Density Bonus Provisions (HP-7): Modify the density bonus component of the Zoning Ordinance so that it is in compliance with SB 1818. Cities must grant more "concessions or incentives" reducing development standards, depending on the percentage of affordable units provided. "Concessions and incentives" include reductions in zoning standards, other development standards, design requirements, mixed use zoning, and any other incentive that would reduce costs for the developer. Any project that meets the minimum criteria for a density bonus is entitled to one concession from the local government agency, increasing up to a maximum of three concessions depending upon the amount of affordable housing provided.

A city may not impose a "development standard" that makes it infeasible to construct the housing development with the proposed density bonus. In addition to requesting "incentives and concessions," applicants may request the waiver of an unlimited number of "development standards" by showing that the waivers are needed to make the project economically feasible. The bill defines "development standards" as "site or construction conditions."

Emergency Shelters and Transitional and Supportive Housing (HP-8): The Zoning Code needs to be amended to permit emergency shelters and transitional and supportive housing in the "Mixed Use" General Plan Designation and "Mixed Use" Zone District to be established.

Second Dwelling Unit on Single Family Lots (HP-9): Evaluate and amend the Zoning Ordinance to identify second unit requirements in relationship to parcel size, existing structures, etc. Efforts to encourage such units include, but are not limited to, removing disincentives such as high fees for the second unit. Consistent with State housing law, the City exempts second dwelling units from density calculations. These second units would be permitted in all residential neighborhoods and also permitted as part of new subdivisions, where feasible.

Duplex Development (HP-10): The Zoning Ordinance would be amended to permit duplexes throughout the single family land use designations that allow these uses. Density bonuses may be provided for affordable duplex units. Design guidance would be provided and as to when and how density bonuses may be provided.

Historic and Architectural Preservation Ordinance (HC-7): Develop a Historic and Architectural Preservation Ordinance that provides procedures and

standards for the designation of historically and architecturally significant buildings, structures, and properties.

Mobile Home Park Preservation (HC-9): Develop a Mobile Home Park Preservation and Improvement Ordinance or Policy to be adopted by the City Council. Procedures and standards would be established for the preservation and improvement of existing mobile home parks where such procedures are not in conflict with State HCD oversight under the Mobilehome Parks Act.

Disabled Parking Requirements (EH-4): The current Zoning Code does not clearly address disabled parking requirements for the various zone districts. The Code needs to be amended so as to formalize parking policies and standards for disabled parking.

Large Family Housing (EH-8): Amend the City's Zoning Ordinance to require that a stipulated percentage of the units in proposed multi-family developments containing 20 or more units, excluding elderly households, be three or four bedroom units, in order to provide for the housing needs of large families.

Conservation of Lower Income mobilehome park Housing (PH-3): Amending the City's Municipal Code to establish procedures to prevent the displacement of Lower income residents from mobilehome parks that may convert to other uses is to be considered.

Condominium Conversion Ordinance (PH-5): Develop and adopt a Condominium Conversion Ordinance to regulate the conversions of rental developments to condominium ownership to conserve the supply of affordable rental housing.

Redevelopment Agency and Area (PH-7): Determine the feasibility of establishing a redevelopment area and if considered feasible, establish a redevelopment agency. Conduct a study to determine the feasibility of establishing a redevelopment area and if considered feasible, establish a redevelopment agency with jurisdiction over the defined redevelopment area. Once the redevelopment project area has been established, use redevelopment funds (including set-aside funds) to assist with the development of affordable housing, or to provide housing assistance to Lower-income households within the redevelopment area. The redevelopment area will include commercial properties which would also benefit from redevelopment activities.

Energy Savings Density Bonus (EC-1): Formalize the land development review process to incorporate energy conservation techniques into the design of proposed subdivisions and residences such as proper orientation to benefit from active and/or passive solar heating and cooling.

Evaluate the provision of up to a 25 percent density bonus to residential development projects if the following two conditions are met:

1. The project would result in an energy savings beyond those obtained with conventional design and construction techniques.

2. The amount of increased density is proportional to the amount of increased energy efficiency achieved that exceeds adopted regulations.

In addressing the estimated housing needs identified in the Housing Needs Assessment section of this Housing Element, State law, Government Code Section 65583(c)(1), requires that this Element contain an inventory of land suitable for residential development, including vacant sites and sites having potential for redevelopment. This inventory must identify adequate sites which will be made available through appropriate zoning and development standards and with public services and facilities needed to facilitate and encourage the development of a variety of housing types for households of all income levels.

In preparing this Housing Element, all vacant general plan classified and zoned residential lands within the City were inventoried. Existing vacant commercial or industrial general plan classified and zoned lands were also evaluated for conversion to residential use based on location and existing land use compatibility. In addition, the existing vacant residential general plan classified and zoned lands were evaluated to determine if densities could be increased where the locations were appropriate to do so.

Table 3 and **Figures 5A** and **5B** identify 65 vacant residential parcels through April 2009 by Assessor's Parcel Number (APN), parcel sizes, General Plan Classification, Zoning District, the density factor and the number of potential residential units that could be constructed.³ The number of dwelling units that could be constructed is then distributed, where applicable, between the four income levels of Very Low, Low, Moderate and Above Moderate. In many instances the size of the parcel may only allow for one residence. The distribution takes into account the existing parcel size, location, infrastructure, and when applicable, natural environmental constraints such as wetlands.

TABLE 3										
Inventory of Current Sites Suitable for Residential Development										
Parcel Information							Potential Dwelling Units By Income Levels			
#	APN	Acres	GP	Zone	Density Factor	Potential DUs	Very Low	Low	Mod	Above Mod
1	071-020-18	6.99	R	R-1-8	4	28		3	8	17
2	071-053-12	0.22	R	R-1	6	1			1	
3	071-062-41	0.26	R	R-1	6	1			1	
4	071-071-05	0.25	R	R-1-8	4	1				1
5	071-071-06	0.25	R	R-1-8	4	1				1
6	071-072-04	0.25	R	R-1-8	4	1				1
7	071-074-16	0.17	R	R-1-8	4	1				1
8	071-074-17	0.17	R	R-1-8	4	1				1
9	071-080-48	0.19	R	R-1-8	4	1				1
10	071-080-49	0.19	R	R-1-8	4	1				1
11	071-080-50	0.19	R	R-1-8	4	1				1
12	071-080-52	1.22	R	R-1-8	4	5			1	5
13	071-105-23	0.18	R	R-1	6	1			1	
14	071-126-15	0.14	R	R-2	12	2			2	
15	071-131-01	0.22	R	R-2	12	3			3	
16	071-174-16	0.29	R	R-1-2	10	4		1	3	
17	071-192-31	0.20	R	R-1-2	10	2			2	
18	071-202-17	0.24	R	R-1-2	10	2			2	
19	071-211-06	0.25	R	R-1-2	10	2			2	

³ The Density Factor is "net" whereby streets have already been excluded. As an example, the maximum density allowable in the R-1 Zone District is seven dwelling units per acre. However, the "net" density is six dwelling units per acre.

TABLE 3 Inventory of Current Sites Suitable for Residential Development										
Parcel Information							Potential Dwelling Units By Income Levels			
#	APN	Acres	GP	Zone	Density Factor	Potential DUs	Very Low	Low	Mod	Above Mod
20	071-212-20	4.96	R	R-1	6	30		3	9	18
21	071-212-23	0.25	R	R-1	6	1			1	
22	071-212-24	0.18	R	R-1	6	1			1	
23	071-212-25	0.18	R	R-1	6	1			1	
24	071-226-03	0.13	R	R-1	6	1			1	
25	071-226-09	0.13	R	R-1	6	1			1	
26	071-244-15	0.15	MFR	R-4	20	4		2	2	
27	071-250-35	7.15	R	R-1	6	43		4	13	26
28	071-261-01	5.77	R	R-1	6	35		3	10	21
29	071-261-03	2.89	R	R-1	6	17		2	5	10
30	071-271-07	0.16	R	R-1-2	10	2			2	
31	071-291-29	0.28	R	R-1-A	6	2			2	
32	071-300-02	11.42	R	R-1-A	6	69		7	21	41
33	073-010-24	2.54	R	R-1	6	15			6	9
34	073-010-44	2.05	R	R-1-2	10	28			11	17
35	073-010-46	8.74	R	R-1	6	52		5	16	31
36	073-010-51	0.19	R	R-1	6	1				1
37	073-020-12	4.26	R	R-1-8	4	17			3	14
38	073-020-17	4.69	R	R-1-10	4	19			4	15
39	073-020-59	2.50	R	R-1-10	4	10			2	8
40	073-020-60	2.50	R	R-1-10	4	10				10
41	073-020-65	1.24	R	R-1-10	4	5				5
42	073-020-73	4.85	R	R-1-8	4	20			4	16
43	073-033-04	0.37	R	R-1	6	2			1	1
44	073-033-05	0.14	R	R-1	6	1				1
45	073-071-10	0.14	R	R-1-2	10	2			2	
46	073-083-08	0.22	R	R-1-2	10	2			1	1
47	073-084-22	0.34	R	R-1-2	10	4			2	2
48	073-086-07	0.20	R	R-1-2	10	2			1	1
49	073-112-09	0.16	R	R-1-2	10	2			1	
50	073-114-05	0.16	R	R-1-2	10	2			1	
51	073-120-10	20.00	R	R-1-8	4	80			16	64
52	073-120-77	1.44	R	R-1	6	9			3	5
53	073-120-78	2.06	R	R-1	6	12			5	7
54	073-141-09	0.25	R	R-1-2	2	2			1	
55	073-200-05	0.20	R	R-1	6	1				1
56	073-200-11	0.20	R	R-1	6	1				1
57	073-200-57	0.26	R	R-1-10	4	1				1
58	073-230-20	0.27	R	R-1	6	1				1
59	073-230-40	0.30	R	R-1	6	1				1
60	073-260-22	4.99	R	R-1-A	6	30		3	9	18
61	073-260-23	5.00	R	R-1-A	6	30		3	9	18
62	073-260-33	1.15	R	R-1-A	6	7			3	4
63	073-260-34	2.00	R	R-1-A	6	12			5	7
64	073-260-35	2.00	R	R-1-A	6	12			5	7
65	073-270-21	0.14	R	R-1	6	1				1
Totals		133.28				659	0	36	206	415

Table 4 and **Figures 5A** and **5B** provide an inventory and location of the nine residential subdivision projects approved since the 2003 Housing Element through April 2009. All the projects are classified as Residential in the general plan. The APN, acreage and zoning designations are identified. The Density Factor is determined by dividing the total number of parcels approved by the acreage. Due to the location of the subdivisions, except for the Salado Orchards Phase 2 and the Corning North Project, the income range distribution is based on 40 percent for Moderate and 60 percent for Above

Moderate. The Salado Orchards has a 28 percent Very Low and 72 percent income distribution, whereas, the Corning North project has a 10 percent Low, 36 percent Moderate and 54 percent Above Moderate income distribution.

Table 5 and **Figures 5A** and **5B** identify 19 existing vacant parcels within the City limits not shown in **Table 3** for which a general plan amendment and/or rezone from another general Plan classification to a residential classification such as Residential or Multi-Family Residential and where appropriate, to a commensurate zoning designation, is recommended. For some parcels, the existing zoning designation does not need to change. In some instances, all that is necessary is a rezone.

In some cases, **Table 5** does not reflect the **Table 3** income distribution due to location, infrastructure, and environmental constraints for individual parcels.

Table 6 and **Figure 6** identify 19 vacant and 18 underutilized parcels within the City's SOI immediately adjacent to the City's northern boundary bounded by I-5, Gallagher Avenue and SR99W/3rd Street. The gross land area encompasses approximately 260 acres containing 58 parcels. There are approximately 186 net acres that could be developed to provide approximately 1,346 single and multi-family housing units.

The *Housing Element Update* recommends that the 260 acres be rezoned to facilitate future annexation(s). This environmental document addresses the proposed rezoning action which is incorporated into the Project description. It should be recognized that even though a parcel or series of parcels are rezoned by the City, annexation application(s) and processing through LAFCo is still required. Rezoning of land by the City does not automatically result in parcels being annexed to the City.

TABLE 4											
Inventory Of Approved Residential Developments											
Approved Development Information								Potential Dwelling Units By Income Levels			
#	Name	APN	Acres	GP	Zone	Density Factor	DUs	Very Low	Low	Mod	Above Mod
D1	Salado Orchards Phase 2	071-020-71	4.80	R	R-1	7.5	36	10	26		
D2	TR Ranch	073-120-18	10.00	R	R-1-8	4	35			14	21
D3	Corning North	071-030-06,16	33.10	R	R-1	6	134		14	48	72
D4	Stonefox	073-120-09,12,30,35	24.86	R	R-1	6	80			32	48
D5	Fig Lane	071-250-06	11.69	R	R-1	6	44			18	26
D6	Blackburn Circle	075-080-19	20.00	R	R-1-8	4	95			38	57
D7	Juniper Ridge,	071-300-03	11.42	R	R-1-8	4	52			21	31
D8	Marguerite Tract	0073-120-16,24,31	15.40	R	R-1-8	4	58			23	35
D9	Shaan Tract	75-310-42	2.74	R	R-1-8	4	14			6	8
Totals			129.2				548	10	40	199	299

**TABLE 5
City Limits – Potential General Plan Amendments And/Or Rezoning**

	APN	Acres	Existing		Proposed				Potential Dwelling Units Income Levels			
			General Plan	Zone	General Plan	Zone	Density Factor	DUs	Very Low	Low	Moderate	Above Moderate
C1	069-150-40	10.00	Unclassified	R-1	R	N/C	6	60		6	18	36
C2	069-150-41	10.75	Unclassified	R-1	R	R-2	12	129	13	26	77	13
C3	069-150-42	9.34	Unclassified	R-1	MFR	R-3	16	149	22	45	82	
C4	069-150-43	0.98	Unclassified	R-1	R	N/C	6	6			1	5
C5	069-150-44	7.62	Unclassified	R-1	R	N/C	6	46		5	14	27
C6	069-150-53	7.77	Unclassified	R-1	R	N/C	6	47		5	14	28
C7	069-150-54	10.00	Unclassified	R-1	R	N/C	6	60		6	18	36
C8	069-150-71	2.00	Unclassified	R-1	R	N/C	6	12			2	10
C9	069-150-72	19.18	Unclassified	R-1	R	N/C	6	115		12	35	69
C10	071-020-01	4.80	R	R-1	N/C	R-2	12	58	6	12	35	6
C11	071-020-03	10.17	R	R-1	N/C	R-1-2	10	102	5	20	66	10
C12	071-020-71	4.80	R	R-1	N/C	R-2	12	58	6	12	35	6
C13	071-177-07 ¹	0.10	R	R	MFR	R-4	20	2		1	1	2
C14	071-177-14 ¹	0.63	R	R	MFR	R-4	20	13	1	2	10	13
C15	071-180-06 ²	15.01	HWY99-W ³	CH-CBDZ	MFR	R-4	20	75	15	30	30	
C16	071-250-12	5.13	HWY99-W & R ³	CH-CBDZ & R-1	R-1	R-1-2	10	51		5	15	31
C17	071-250-25 ⁴	0.30	HWY99-W ³	CH-CBDZ	MFR	R-3	16	5	1	1	3	
C18	071-250-32	1.96	HWY99-W ³	CH-CBDZ	MFR	R-4	20	39	8	16	16	
C19	071-250-38	10.87	HWY99-W ³	CH-CBDZ	MFR	R-3	16	174	26	52	96	
Totals		187.15						1,199	102	254	567	276

Notes:

- ¹ Parcels 071-020-07 and 071-020-14 would be merged.
- ² Utilizing approximately 3.75 acres of the 15.01 acre parcel.
- ⁴ The Highway 99W Corridor Specific Plan will require an amendment to acknowledge the proposed residential land uses and accompanying densities. The general plan classifications and zoning designations in the Specific Plan could remain as in the text. The table identifies comparable classifications and designations.
- ⁵ This parcel would be merged with APN 071-250-38-1

**TABLE 6
Annexation Area – Potential General Plan Amendments And Rezoning**

	APN	Acres	Usable Acres ¹	Existing		Proposed				Potential Dwelling Units Income Levels				
				General Plan	Zone	General Plan	Zone	Density Factor	DUs	Very Low	Low	Moderate	Above Moderate	
A1	069-140-46	2.47	2.47	Suburban	R1-A-MH-B86	R	R-2	12	30	3	6	18	3	
A2	069-140-47	2.47	2.47	Suburban	R1-A-MH-B86	R	R-2	12	30	3	6	18	3	
A3	069-140-48	2.47	2.47	Suburban	R1-A-MH-B86	R	R-2	12	30	3	6	18	3	
A4	069-140-49	2.47	2.47	Suburban	R1-A-MH-B86	R	R-2	12	30	3	6	18	3	
A5	069-140-50	2.32	2.32	Suburban	R1-A-MH-B86	MFR	R-3	16	37	4	11	22		
A6	069-140-51	2.28	2.28	Suburban	R1-A-MH-B86	MFR	R-3	16	36	4	11	22		
A7	069-140-52	2.21	2.21	Suburban	R1-A-MH-B86	MFR	R-3	16	35	4	11	21		
A8	069-140-53	2.27	2.27	Suburban	R1-A-MH-B86	MFR	R-3	16	36	4	11	22		
A9	069-140-87	5.07	5.07	Suburban	R1-A-MH-B86	R	R-1	6	30		3	9	18	
A10	069-140-90	8.26	6.00	Suburban	R1-A-MH-B86	R	R-1	6	36		4	11	22	
A11	069-150-02	10.00	10.00	Suburban	R1-A-MH-B86	R	R-1	6	60		6	18	36	
A12	069-150-04	20.00	18.00	Suburban	R1-A-MH-B86	R	R-1	6	108		16	32	59	
A13	069-150-07	5.00	3.00	Suburban	R1-A-MH-B86	R	R-1	6	18		2	5	11	
A14	069-150-08	5.00	3.00	Suburban	R1-A-MH-B86	R	R-1-2	6	18	1	4	12	2	
A15	069-150-10	10.00	10.00	Suburban	R1-A-MH-B86	R	R-1-2	6	60	3	12	39	6	
A16	069-150-12	5.00	4.00	Suburban	R1-A-MH-B86	R	R-1-2	6	24	1	5	16	2	
A17	069-150-13	2.18	1.00	Suburban	R1-A-MH-B86	R	R-1-2	6	6	0	1	4	1	
A18	069-150-14	4.83	2.00	Suburban	R1-A-MH-B86	R	R-1-2	6	12	1	2	8	1	
A19	069-150-16	1.87	1.00	Suburban	R1-A-MH-B86	R	R-1-2	6	6	0	1	4	1	
A20	069-150-17	1.93	1.50	Suburban	R1-A-MH-B86	R	R-1-2	6	9	0	2	6	1	
A21	069-150-29	10.00	10.00	Suburban	R1-A-MH-B86	R	R-1	6	60	3	12	39	6	
A22	069-150-31	32.50	30.00	Suburban	R1-A-MH-B86	R	R-1	6	180		18	54	108	
A23	069-150-34	2.96	2.00	Suburban	R1-A-MH-B86	R	R-1	6	12			2	10	
A24	069-150-35	2.95	2.00	Suburban	R1-A-MH-B86	R	R-1	6	12			2	10	
A25	069-150-36	7.82	7.82	Suburban	R1-A-MH-B86	R	R-1	6	47	2	9	30	5	
A26	069-150-46	10.00	10.00	Suburban	R1-A-MH-B86	R	R-1	6	60		6	18	36	
A27	069-150-47	10.00	8.00	Suburban	R1-A-MH-B86	MFR	R-3	16	128	19	38	70		
A28	069-150-48	10.00	10.00	Suburban	R1-A-MH-B86	R	R-1	6	60		6	18	36	
A29	069-150-49	3.79	2.80	Suburban	R1-A-MH-B86	R	R-1	6	17			3	13	
A30	069-150-50	3.24	2.50	Suburban	R1-A-MH-B86	R	R-1	6	15			3	12	
A31	069-150-51	1.45	0.72	Suburban	R1-A-MH-B86	R	R-1	6	4			1	3	
A32	069-150-52	1.46	1.46	Suburban	R1-A-MH-B86	R	R-1	6	9			2	7	
A33	069-150-56	9.99	7.5	Suburban	R1-A-MH-B86	R	R-1	6	45		5	14	26	
A34	069-150-63	1.99	1.99	Suburban	R1-A-MH-B86	R	R-1	6	12			2	10	
A35	069-150-64	2.00	2.00	Suburban	R1-A-MH-B86	R	R-1	6	12			2	10	
A36	069-150-65	2.02	2.02	Suburban	R1-A-MH-B86	R	R-1	6	12			2	10	
A37	069-150-66	3.33	1.66	Suburban	R1-A-MH-B86	R	R-1	6	10			2	8	
Totals		213.6	186.00							1,346	58	220	589	480

Note: Where "Usable" parcel acreage is less than the APN acreage this identifies an underutilized parcel where potential development is based on the "Usable Acres."

Table 7 provides a compilation of the four tables identifying the number of dwelling units that could be constructed for each income group based on existing vacant residential lands, approved land divisions, vacant lands in the City where a general plan amendment and/or rezone is recommended, and vacant and underutilized lands within the proposed 260 acre annexation area.

TABLE 7 Potential Number of Dwelling Units					
Income Group	Potential Dwelling Units				
	RHNA 2007-2014	Existing	Approved	City GPA/ Rezone	Annex GPA/ Rezone
Very Low	83	0	10	102	58
Low	72	36	40	254	220
Moderate	78	206	199	567	589
Above Moderate	179	415	299	276	480
Total	411	659	548	1,199	1,346

Note: Due to number rounding totals may not be reflect the values used.

Table 7 identifies that during the Housing Element planning period of 2009 to 2014 and 2007-2014 RHNA the following assumptions can be made:

- Based on Existing vacant parcels, there are an insufficient number of potential housing units to meet the Very Low and Low income group housing needs.⁴
- There are a sufficient number of Existing vacant parcels to serve the needs of Moderate and Above Moderate income groups.
- Based on Existing parcels and Approved subdivision parcels, there are an insufficient number of potential housing units to serve the housing needs of the Very Low and Low income groups.
- To serve the housing needs of the Low income group, there are a sufficient number of Existing parcels and Approved subdivision parcels.
- To adequately serve the housing needs of the Very Low income group during the planning period, the City will need to undertake general plan amendments and/or rezonings.
- Beyond the current planning period, the City may need to undertake additional general plan amendments within the City limits and/or annex lands within the existing SOI to meet the needs of Very Low and Low income housing groups.

The City has planned for the future growth through the adoption of a Municipal Service Review (MSR) in 2005. The MSR allowed the Tehama County LAFCO to expand the City's SOI by an additional 4.65 square miles, or 2,950 acres. The current SOI encompasses 7.22 square miles, or 4,620 acres contiguous to the City limits on nearly all sides of the City. Approximately 260 acres within the SOI adjacent to the northwestern City limits are proposed for annexation.

Based on a residential construction growth rate of 1.3 percent per year, it is projected that residential buildout of the City which includes development of the existing vacant lots and approved subdivisions would occur within 28 years, or 2034. If the parcels proposed for general plan amendment and rezoning are approved, buildout could occur within 49 years or 2055. Buildout of the City with the inclusion of the 250-acres

⁴ It should be recognized that without knowing which housing assistance programs will be utilized, and/or the levels of funding that will be available, it is not possible to anticipate the potential distribution of lower income units among the Very Low and Low income groups. It is possible that some of the Existing vacant parcels could be utilized for Very Low income housing development.

proposed for annexation is projected to occur by 2073 which is 67 years from Year 2007 which is the beginning of the 2007-2014 RHNA cycle for this *Housing Element Update*.

8. OTHER AGENCIES WHOSE APPROVAL IS REQUIRED (e.g. Permits, financing approval or participation agreement.)

- California Department of Housing and Community Development (HCD)
- City of Corning Planning Commission Recommendation
- City of Corning City Council

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors identified below could be potentially affected by the Project; however, mitigations in the Initial Study and also provided in **Attachment 1** have been incorporated into the Project so that there are no impacts that are **Potentially Significant Impact** as indicated by the ensuing checklist.

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Green House Gas Emissions
- Hydrology and Water Quality
- Noise
- Energy Conservation

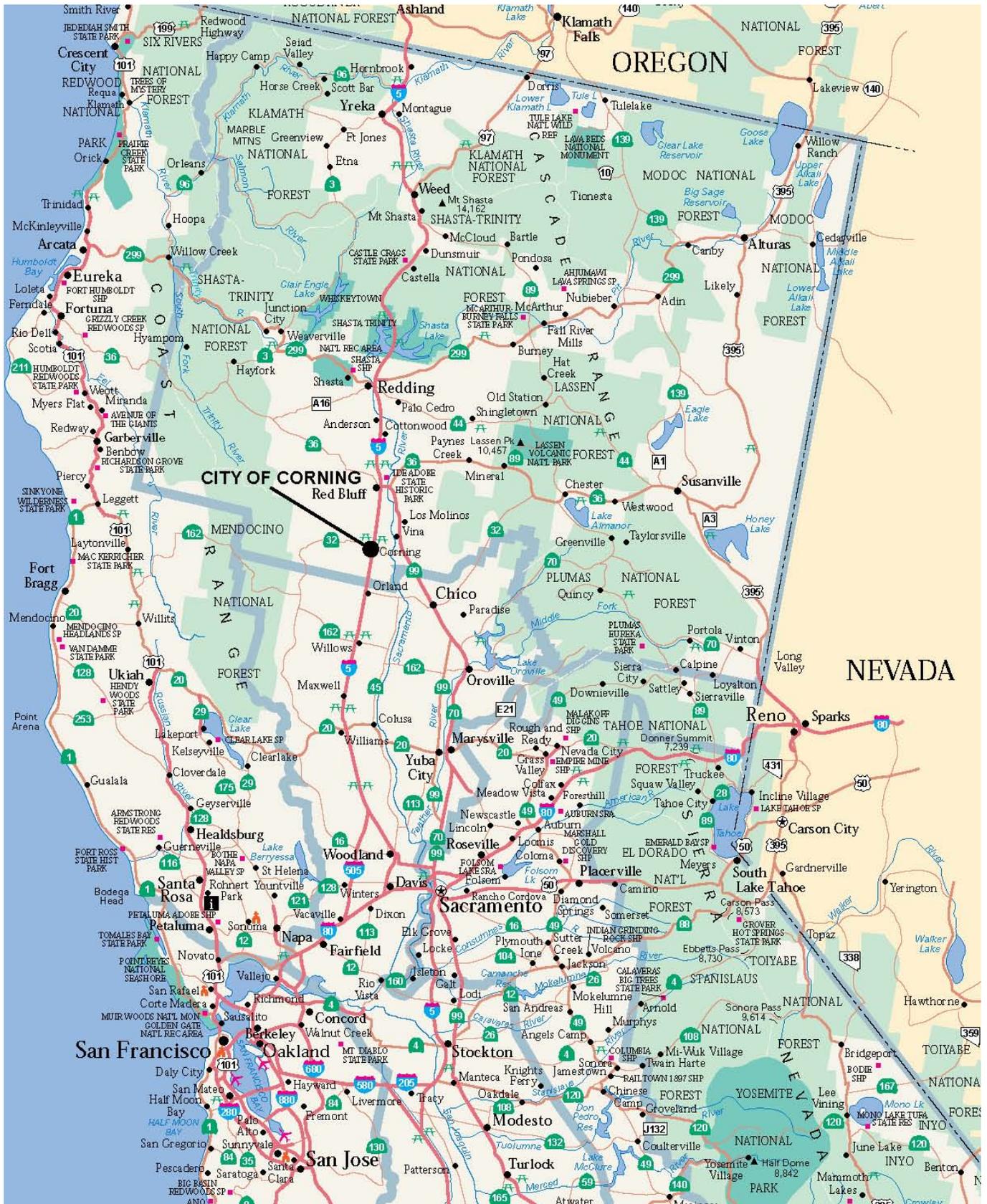
ENVIRONMENTAL DETERMINATION

On the basis of this Initial Study, I find that the proposed Project will not have a significant effect on the environment; therefore, a **MITIGATED NEGATIVE DECLARATION** will be prepared.

Signature:

John Stoufer, Planning Director

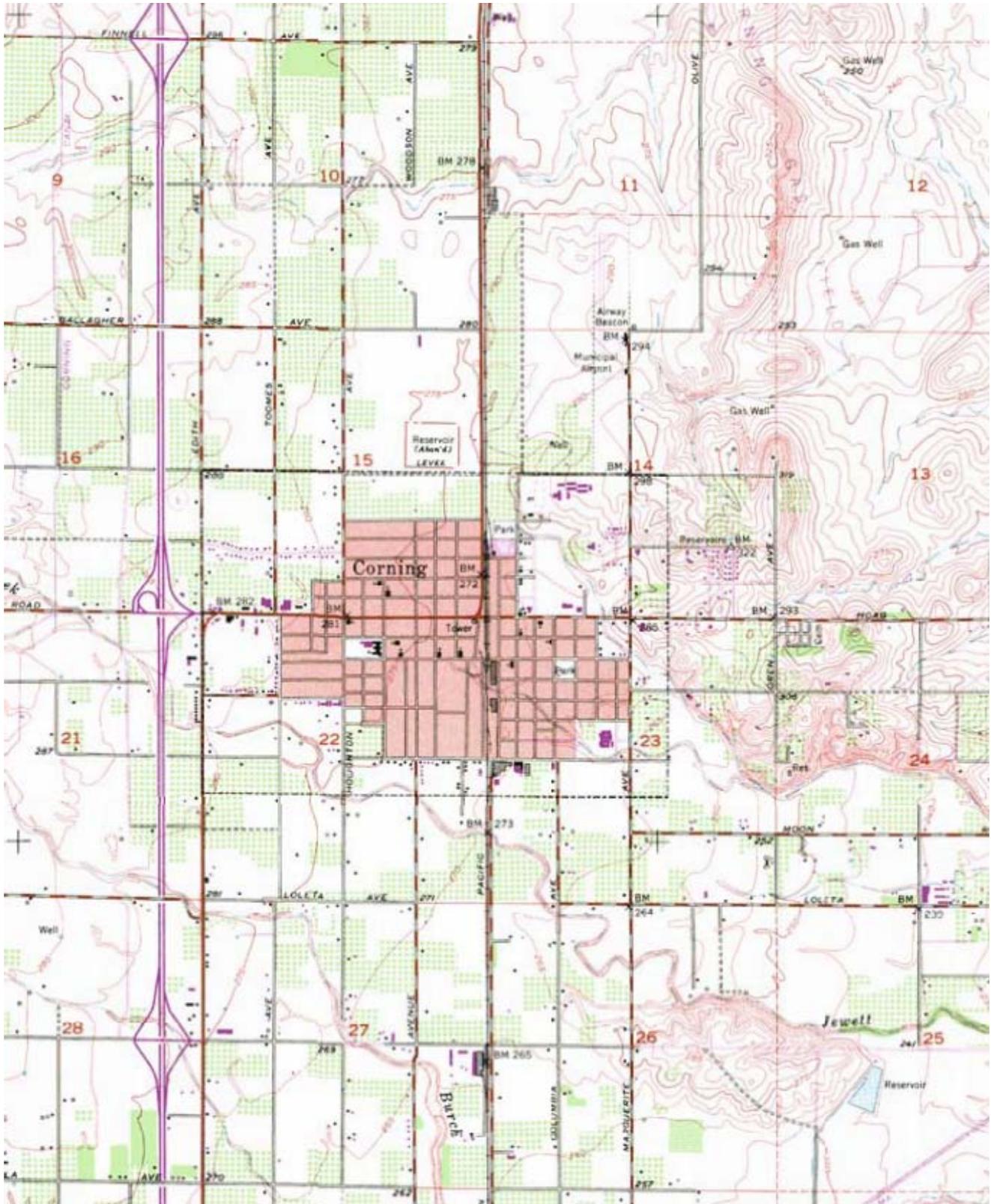
Date: August 14, 2009



Base Map By Eureka Cartography for the California Division of Tourism



FIGURE 1 – LOCATION MAP



Base Map By MapTech



FIGURE 2 – USGS MAP

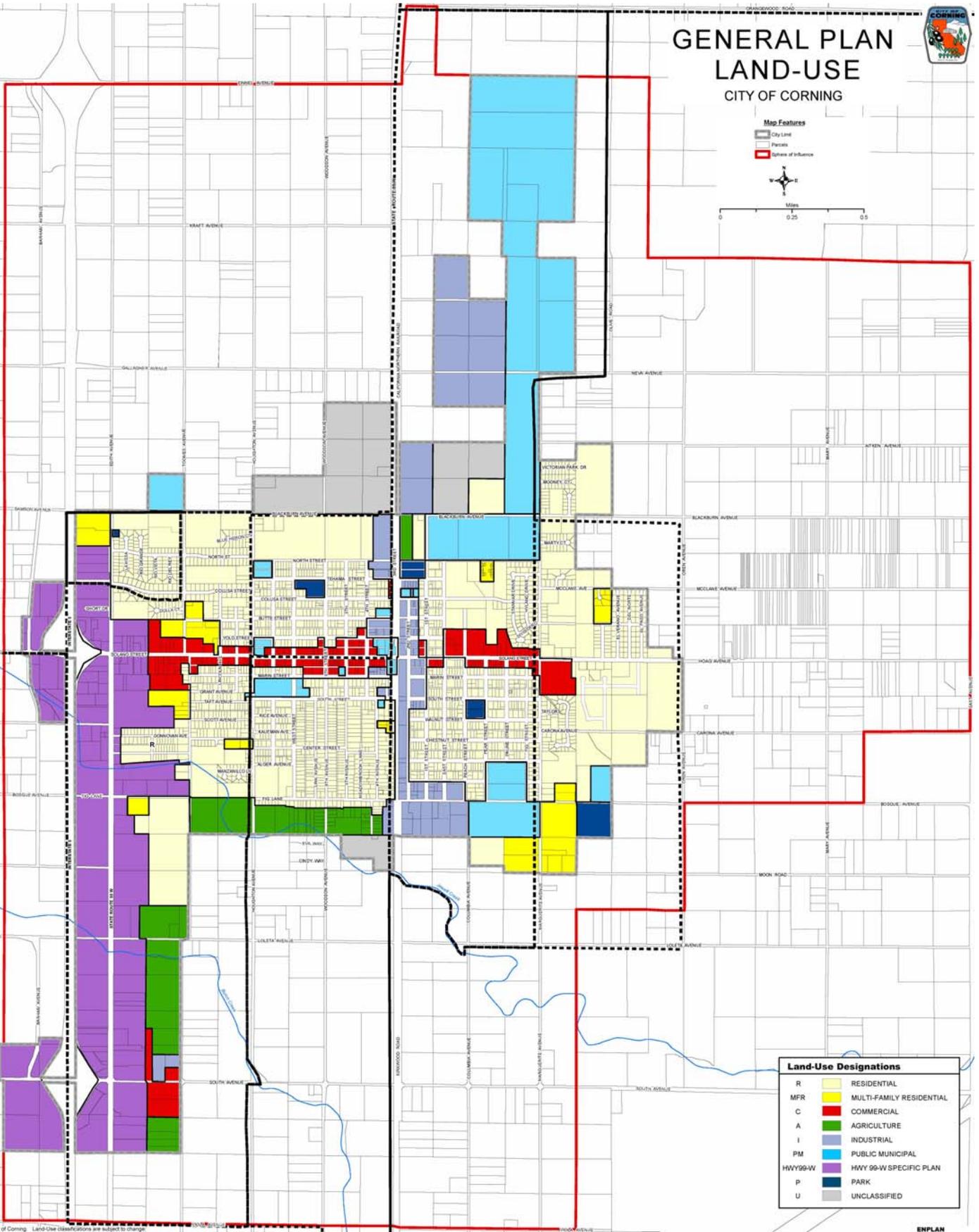


FIGURE 3 – GENERAL PLAN LAND USE MAP & SOI



ZONING

CITY OF CORNING

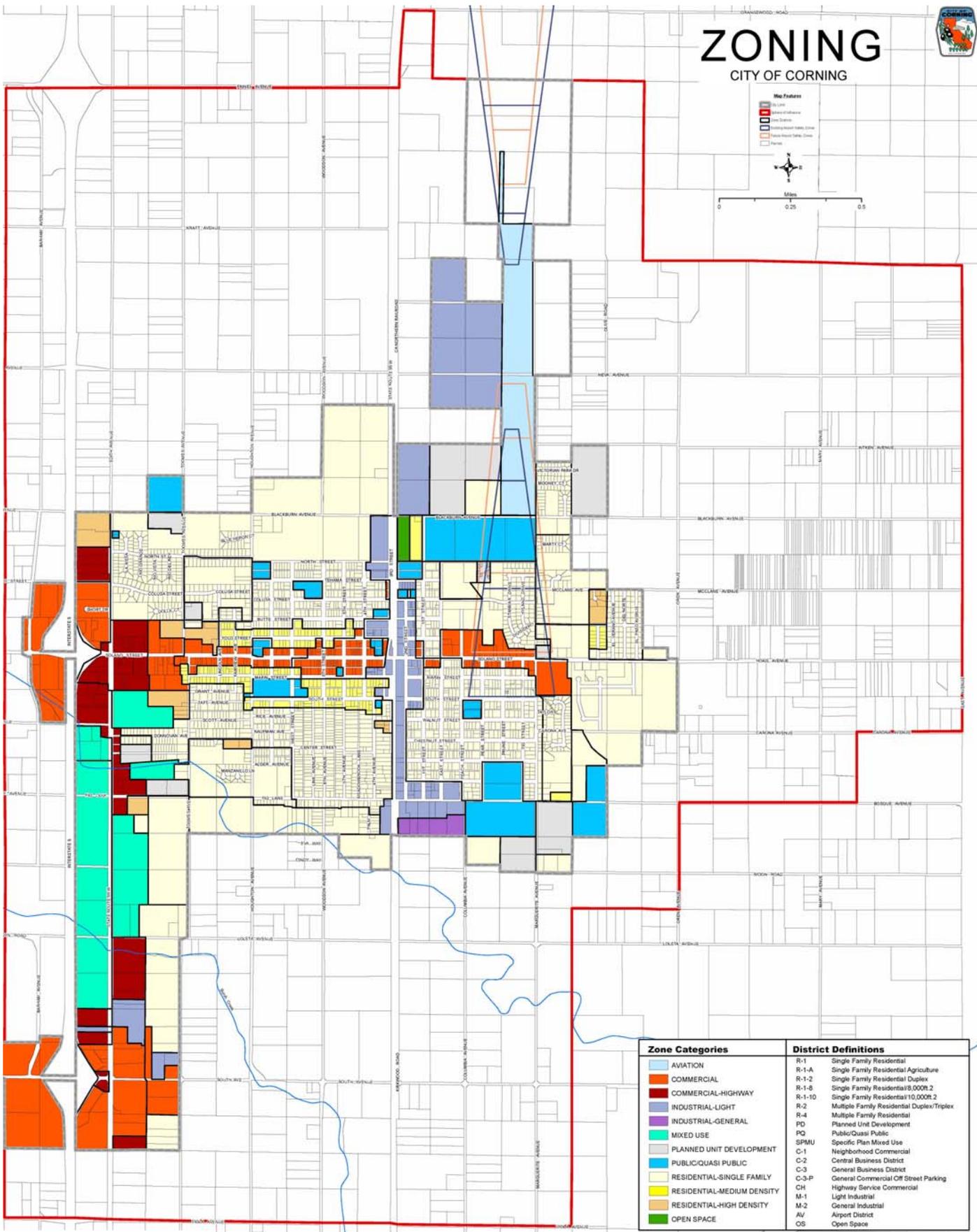
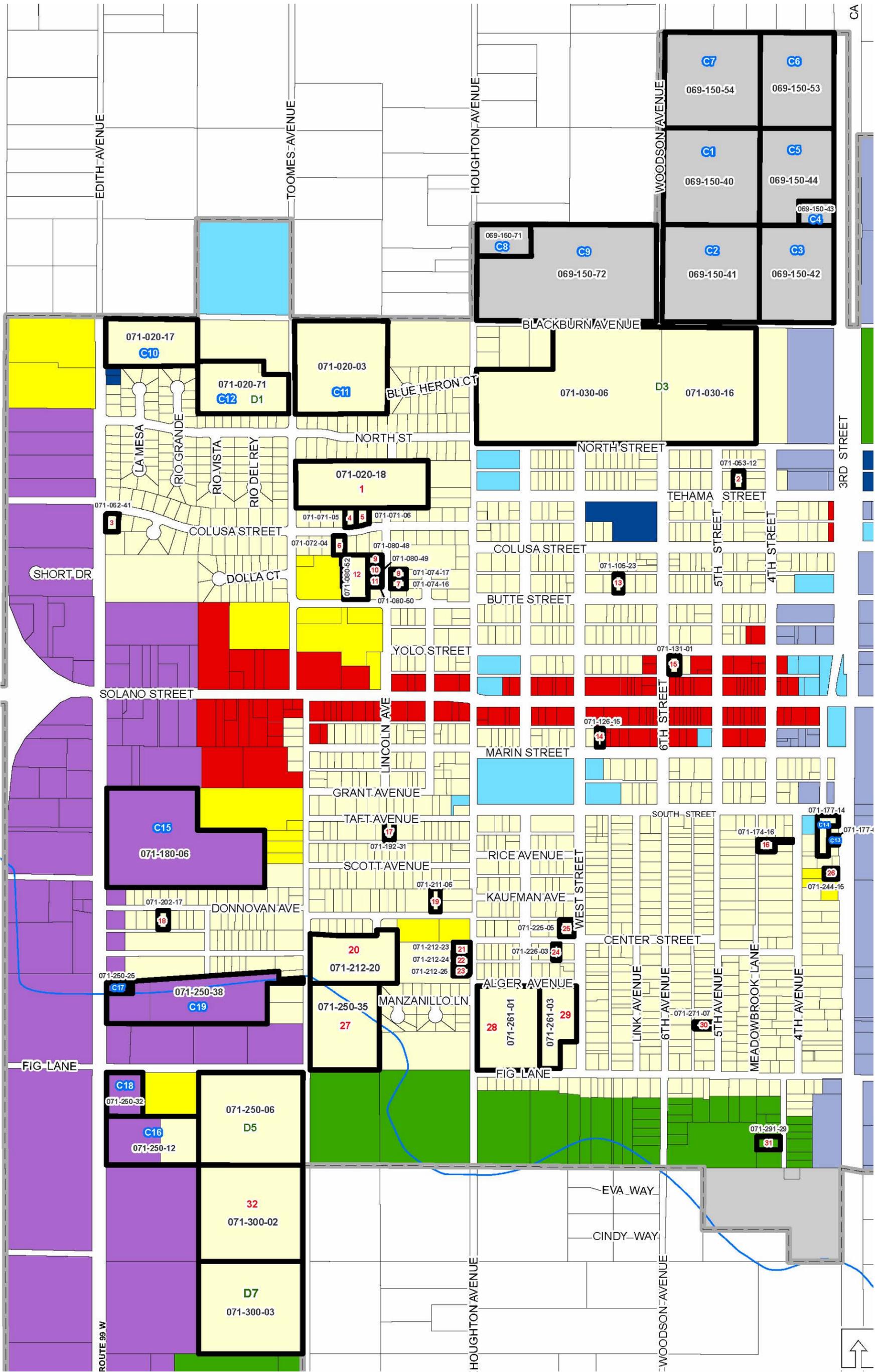


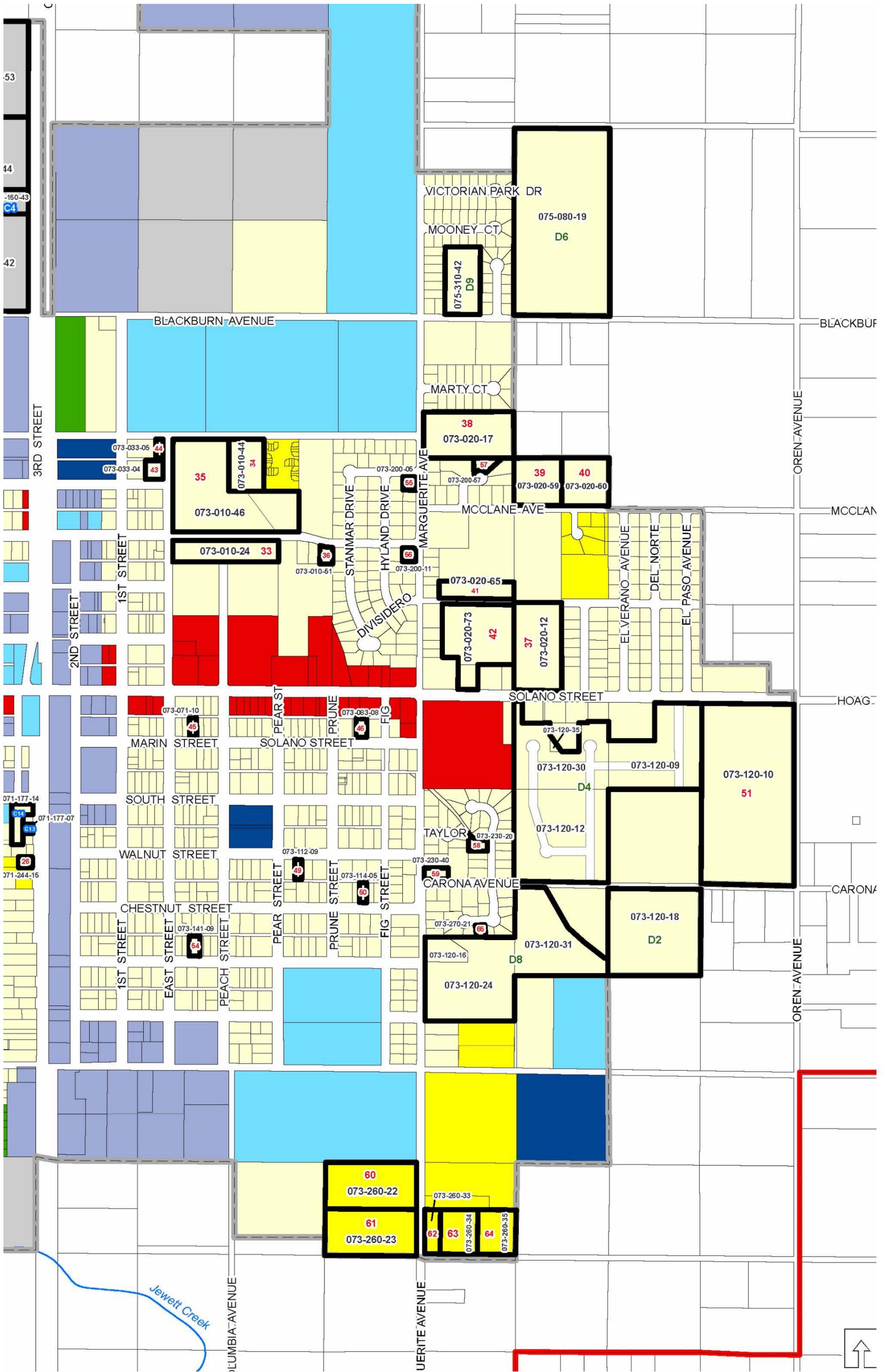
FIGURE 4 – ZONING MAP & SOI



Mapping Provided By ENPLAN



FIGURE 5A – VACANT LANDS INVENTORY MAP – WESTERN AREA



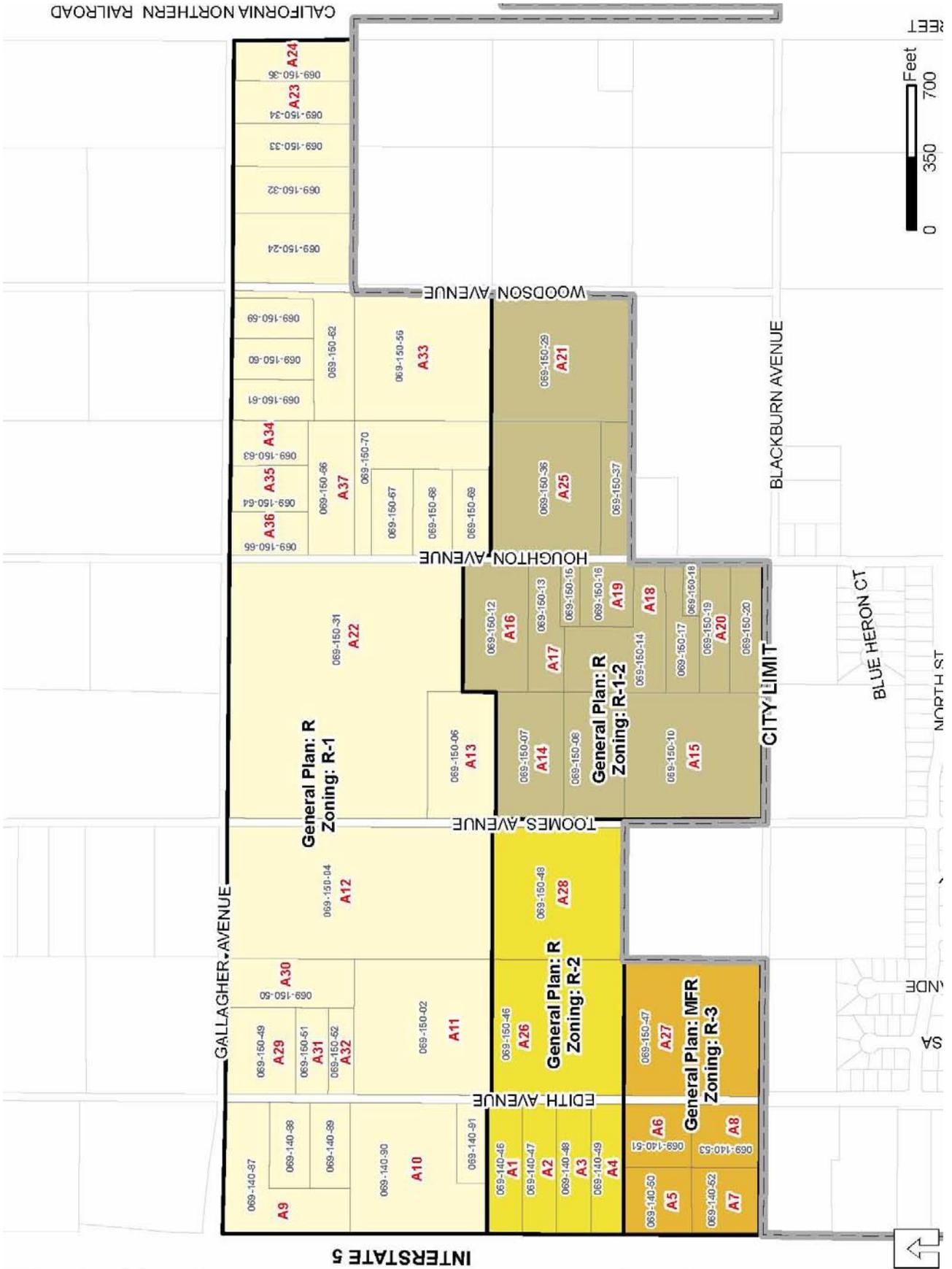
Mapping Provided By ENPLAN



FIGURE 5B – VACANT LANDS INVENTORY MAP – EASTERN AREA



FIGURE 6 – ANNEXATION AREA – POTENTIAL GPA'S AND REZONINGS



Mapping Provide By ENPLAN

CALIFORNIA NORTHERN RAILROAD

EVALUATION OF ENVIRONMENTAL IMPACTS

This section discusses potential environmental impacts associated with approval of the proposed Project.

The following guidance, adapted from **Appendix G** of the State **CEQA Guidelines**, was followed to answer the checklist questions:

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question;
and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS <i>Would the project:</i>				
a. Have a substantial adverse effect on a scenic vista?			X	
b. Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c. Substantially degrade the existing visual character or quality of the site and its surroundings?			X	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

Existing Environmental Setting: The issue of aesthetics can be extremely subjective, however, there are accepted standards that the majority of the public can agree on, particularly when related to building construction. Standards address view obstructions, needless removal of trees, “scarring” from grading, landscaping, sign clutter and street lighting. Another important criterion for visual impacts is visual consistency. Project design should be consistent with natural surroundings and adjacent land uses. For example, a residential development might contrast visually with an industrial facility. Such incompatibilities can be partially mitigated through such measures as fences, and landscaping, to soften the harshness of the contrasts.

However, given the nature of the proposed Project, which is the *Housing Element Update*, aesthetic issues will be addressed as part of specific project entitlements.

The City of Corning is located in south central Tehama County and lies just to the east of I-5. The Sacramento River lies to the east of the City of Corning. The surrounding area is primarily farmland. The topography of Corning is essentially flat with gently rolling hills in the eastern portion of the City planning area. The approximate elevation ranges from 263 feet to 305 feet.

The project area is developed with roadways, intersections, residential development, commercial businesses, vacant lots, I-5, and Highway 99W. The California Northern Railroad tracks bisect the City along 3rd Street, which becomes Chicago Avenue south of Hwy 99W.

Discussion of Checklist Answers:

- a. *Have a substantial adverse effect on a scenic vista?*
- b. *Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.*
- c. *Substantially degrade the existing visual character or quality of the site and its surroundings.*

The proposed Project is the adoption of the 2009 - 2014 *Housing Element Update*. The Project does propose specific general plan amendments, rezonings, and prezoning for future annexation. Future development of residential uses will be required to be consistent with general plan policies and comply with applicable City zoning and development standards and guidelines, as well as any requirements mandated during the environmental review of individual projects, to ensure that significant impacts to identified scenic vistas or resources do not occur. Adherence to such requirements will reduce potential aesthetic impacts associated with this issue to a **less than significant** level.

I-5 within the City limits or adjacent to the lands proposed for annexation and prezoning is not a scenic highway nor is it listed as an eligible scenic highway within this stretch of the freeway. There are no scenic resources such as trees, rock outcroppings, or historic buildings that will be impacted by the proposed action. There is **no impact**.

- d. *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.*

The *City of Corning General Plan* does not contain any standards for evaluating light and glare impacts. Impacts of light and glare are therefore determined to be potentially significant if the following criteria are met:

- The light and/or glare are continuous, rather than temporary in nature (example: a continuous stream of cars or regular pattern of lighting vs. occasional passing headlights).
- The level of light and/or glare is noticeably higher than the surrounding ambient level of light.
- The light and/or glare have the potential to shine directly into the interior and/or outdoor activity areas of existing or future residences.
- The size of the affected parcels (larger parcels offer greater siting flexibility of residences).

Development of residential uses in accordance with applicable provisions of the City's *Housing Element Update* would create new sources of light and glare in the City. The increased density and intensity of residential uses would increase the amount of light and glare in the developed areas (from exterior lighting, street lighting, vehicular lighting, and interior lighting visible from the outside). To minimize potential light and glare impacts, future development proposed by the *Housing Element Update* would be subject to environmental review and any impacts due to lighting and glare would be mitigated at that time. In addition, new development projects would be required to meet any applicable policies of the City. Therefore, impacts as a result in increased light and glare are considered **less than significant**.

Conclusion: Potential aesthetic impacts are **less than significant** due to specific features are incorporated into the Project to eliminate, avoid, and/or to reduce potential aesthetic and visual resource impacts.

of the outlying areas of the City. A large portion of *Farmland of Local Importance* is also found in the north and northeast. However, all of these lands within the City's SOI were amended under the recently adopted *Tehama County General Plan*.⁵ The associated land use designations are identified in **Table 6**.

Discussion of Checklist Answers:

- a. *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.*
- b. *Conflict with existing zoning for agricultural use, or a Williamson Act contract.*

There are no properties under a Williamson Act contract within the proposed Project area. The proposed Project will not introduce an incompatible land use since the Project site does not abut active agricultural operations. Therefore, there will not be any conflicts with existing or adjacent agricultural operations.

The *Housing Element Update* does not identify any vacant parcels within the City (**Table 3**) that are classified as agriculture. However, seven of the 65 parcels totaling 26.84 acres that are zoned R-1-A, which is an agricultural combining district.

None of the 19 parcels identified in **Table 5** which are proposed to be general plan amended and/or rezoned to residential land use classifications and zoning designations and/or higher densities, necessary for the City to consider actions in order to generate adequate sites for new housing development, are agricultural in any manner.

The EIR prepared and adopted for the Tehama County General Plan addressed the conversion of farmlands within the SOI for which the Board of Supervisors adopted a "Statement of Overriding Considerations." Therefore, the 260 acre area proposed for annexation and rezoning do not raise agriculturally related environmental issues associated with the proposed Project that need to be addressed.

Since none of the City's farmland will be converted to non-agricultural uses and because those lands within the SOI have already been converted to residential land uses, impacts to agricultural resources as a result of the proposed project are considered **less than significant**.

- c. *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?*
- d. *Result in the loss of forest land or conversion of forest land to non-forest use?*

There is no forest land located within the City or within the area proposed for rezoning and future annexation.

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

⁵ PMC. March 31, 2009. *Tehama County General Plan Update 2009-2029*

The proposed Project does not involve changes in the existing environment which could result in the conversion of *Farmland* or forest land to non-agricultural or non-forest uses. There is **no impact**.

Conclusion: There are **less than significant impacts** on agricultural lands and **no impacts** on forest, or timber lands and/or operations from the proposed Project.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY. <i>Would the project:</i>				
a. Conflict with or obstruct implementation of the applicable air quality plan?		X		
b. Violate any air quality standard or contribute to an existing or projected air quality violation?		X		
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors?)		X		
d. Expose sensitive receptors to substantial pollutant concentrations?		X		
e. Create objectionable odors affecting a substantial number of people?				X

Existing Environmental Setting: The Project area is located in the Northern Sacramento Valley Air Basin (*NSVAB*) which is one of the air “sub-basins” within the Sacramento Valley Air Basin. The other sub-basin is the Greater Sacramento Air region. The *NSVAB* encompasses Shasta, Tehama, Glenn, Butte, Colusa, Sutter, and Yuba counties. The basin’s principal geographic features include a large valley bounded on the north and west by the Coastal Mountain Range and on the east by the southern portion of the Cascade Mountain Range and the northern portion of the Sierra Nevada. The basin is about 200 miles long in a north-south direction, and has a maximum width of about 150 miles, although the valley floor averages only about 50 miles in width. The mountain ranges reach heights in excess of 6,000 feet with peaks rising much higher. The general elevation of the Project site is about 450 feet above mean sea level.

The area climate is characterized by hot, dry summers and cool, wet winters. During the summer months from mid-April to mid-October, significant precipitation is unlikely and temperatures range from daily maximums exceeding 100° Fahrenheit (°F) to evening lows in high 50s and low 60s. During the winter, highs are typically in the 60s with lows in the 30s. Wind direction is primarily along the valley due to the channeling effect of the mountains to either side of the valley. During the summer months surface air movement is from the south, particularly during the afternoon hours. During the winter months, wind direction is more variable.

The quantity of air pollutant emissions generated within the *NSVAB* is small compared to the more densely populated areas such as the Sacramento and the San Francisco Bay areas. Nevertheless, the following characteristics of the *NSVAB* make it susceptible for the build-up of air pollution.

- Pollution generated in the broader Sacramento area and San Francisco Bay area can be transported northward into the *NSVAB*.
- The mountain ranges to the west, north, and east of the *NSVAB* act as horizontal barriers which restrict the flow of pollution out of the basin.
- The valley portion of the *NSVAB* (those areas below 1,000 feet elevation) is often subjected to temperature inversions that typically occur during cool, calm nights that restrict vertical mixing and dilution of pollutants.
- The typical clear skies and warm temperatures in the summer months promote the formation of the photochemical pollutant ozone.

The federal and state governments have enacted laws mandating the identification of areas not meeting the ambient air quality standards and development of regional air quality plans to eventually attain the standards. National ambient air quality standards are determined by the US EPA. The standards include both primary and secondary ambient air quality standards. Primary standards are established with a safety margin. Secondary standards are more stringent than primary standards and are intended to protect public health and welfare. States have the ability to set standards that are more stringent than the federal standards. As such, California established more stringent ambient air quality standards.

Federal and State air quality standards have been established for six ambient air pollutants, commonly referred to as “criteria” air pollutants standards based on a comprehensive review of their health effects. The criteria air pollutants for which federal and state ambient standards have been established include ozone (O₃), carbon monoxide (CO), nitrogen monoxide (NO), sulfur dioxide (SO₂), suspended particulate matter (PM₁₀), fine particulate matter (PM_{2.5}) and lead (Pb). In this analysis, O₃ is evaluated by assessing emissions of O₃ precursors: reactive organic gases (ROG) and Nitrogen Oxides (NO_x).

Both the U. S. Environmental Protection Agency and the California Air Resources Board have established ambient air quality standards for common pollutants. These ambient air quality standards are levels of contaminants which represent safe levels that avoid specific adverse health effects associated with each pollutant. The ambient air quality standards cover what are called "criteria" pollutants because the health and other effects of each pollutant are described in criteria documents. **Table AQ-1** identifies the major criteria pollutants, characteristics, health effects and typical sources. The federal and California state ambient air quality standards are summarized in **Table AQ-2** which also identifies Toxic Air Contaminant (TAC) standards.

TABLE AQ-1 US EPA Criteria Pollutants			
Pollutant	Characteristics	Health Effects	Major Sources
Ozone	A highly reactive photochemical pollutant created by the action of sunshine on ozone precursors (primarily reactive hydrocarbons and oxides of nitrogen). Often called photochemical smog.	Eye irritation Respiratory function impairment	Combustion sources such as factories and automobiles, and evaporation of solvents and fuels.
Carbon Monoxide	An odorless, colorless gas that is highly toxic. It is formed by the incomplete combustion of fuels.	Impairment of oxygen transport in the bloodstream Aggravation of cardiovascular disease Fatigue, headache, confusion, dizziness Can be fatal in the case of very high concentrations	Automobile exhaust, combustion of fuels, combustion of wood in woodstoves and fireplaces.
Nitrogen Dioxide	Reddish-brown gas that discolors the air, formed during combustion.	Increased risk of acute and chronic respiratory disease	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Sulfur Dioxide	A colorless gas with a pungent, irritating odor.	Aggravation of chronic obstruction lung disease	Automobile and diesel truck exhaust, industrial processes, and fossil-fueled power plants.
Suspended Particulate Matter (PM ₁₀)	Solid and liquid particles of dust, soot, aerosols, and other matter that are small enough to remain suspended in the air for a long period of time.	Aggravation of chronic disease and heart/lung disease symptoms	Combustion, automobiles, field burning, factories, and unpaved roads. Also a result of photochemical processes.
Lead	A metal that occurs both naturally in the environment and in manufactured products.	Organ damage Reproductive Disorders Osteoporosis Brain and nerve impairment Heart and blood disease/impairment	Sources include industrial sources and crustal weathering of soils followed by fugitive dust emissions

Source: California Air Resources Board; US Environmental Protection Agency

TABLE AQ-2 Federal and State Air Quality Standards			
Pollutant	Average Time	California Standards ^a Concentration ^c	Federal Standards ^b Primary ^{c, d}
Ozone (O ₃)	1 hour	0.09 ppm (180 µg/m ³)	—
	8 hours	0.07 ppm (137 µg/m ³)	0.075 ppm (157 µg/m ³)
Particulate Matter (PM ₁₀)	24 hours	50 µg/m ³	150 µg/m ³
	Annual arithmetic mean	20 µg/m ³	50 µg/m ³
Fine Particulate Matter (PM _{2.5})	24 hours	—	20 µg/m ³
	Annual arithmetic mean	12 µg/m ³	15 µg/m ³
Carbon Monoxide (CO)	8 hours	9.0 ppm (10 µg/m ³)	9 ppm (10 mg/m ³)
	1 hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)
Nitrogen Dioxide (NO ₂)	Annual arithmetic mean	—	0.053 ppm (100 µg/m ³)
	1 hour	0.18 ppm	—
Sulfur Dioxide (SO ₂)	Annual arithmetic mean	—	0.030 ppm (80 µg/m ³)
	24 hours	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)
	1 hour	0.25 ppm (655 µg/m ³)	—
Lead (Pb) ^e	30-day average	1.5 µg/m ³	—
	Calendar quarter	—	1.5 µg/m ³
Visibility Reducing Particles	8 hours	†	—
Sulfates	24 hours	25 µg/m ³	—
Hydrogen Sulfide	1 hour	0.03 ppm (42 µg/m ³)	—
Vinyl Chloride ^e	24 hours	0.01 ppm (26 µg/m ³)	—

Notes: ppm = Parts Per Million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter

^a California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 ad 24 hour), nitrogen dioxide, suspended particulate matter – PM₁₀, PM_{2.5}, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

^b National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest either hour concentration or a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration of 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact US EPA for further clarification and current federal policies.

^c Concentrations expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

^d National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

^e The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

^f Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.

Source: California Air Resources Board, Ambient Air Quality Standards April 1, 2008.

The federal and state ambient standards were developed independently with differing purposes and methods, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent. This is particularly true for ozone and particulate matter (PM₁₀ and PM_{2.5}). The following provides a description of the various Criteria Pollutants identified in **Table AQ-1**.

Ozone: Ozone (O₃) is a photochemical oxidant and the major component of smog. While O₃ in the upper atmosphere is beneficial to life by shielding the earth from harmful ultraviolet radiation from the sun, high concentrations of O₃ at ground level are a major health and environmental concern. O₃ is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of volatile organic compounds (VOC) and oxides of nitrogen (NO_x) in the presence of sunlight. These reactions are stimulated by sunlight and temperature so that peak O₃ levels occur typically during the warmer times of the year. Both VOCs and NO_x are emitted by

transportation and industrial sources. VOCs are emitted from sources as diverse as automobiles, chemical manufacturing, dry cleaners, paint shops and other sources using solvents.

The reactivity of O₃ causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O₃ not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O₃ for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Major ozone precursors include mobile sources such as cars, light-duty, and heavy duty trucks, and stationary emission sources such as industrial facilities, home furnaces, wood burning appliances, and waste disposal and treatment facilities.

Carbon Monoxide: Carbon Monoxide (CO) is a colorless, odorless and poisonous gas produced by incomplete burning of carbon in fuels. When CO enters the bloodstream, it reduces the delivery of oxygen to the body's organs and tissues. Health threats are most serious for those who suffer from cardiovascular disease, particularly those with angina or peripheral vascular disease. Exposure to elevated CO levels can cause impairment of visual perception, manual dexterity, learning ability and performance of complex tasks. The primary source of carbon monoxide is automobile use.

Nitrogen Dioxide: Nitrogen Dioxide (NO₂) is a brownish, highly reactive gas that is present in all urban atmospheres. NO₂ can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O₃) and acid rain, and may affect both terrestrial and aquatic ecosystems.

The major mechanism for the formation of NO₂ in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO). NO₂ plays a major role, together with VOCs, in the atmospheric reactions that produce O₃. NO₂ forms when fuel is burned at high temperatures. The two major emission sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

Particulate Matter: Suspended particulate matter (PM) is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, and dust. "Inhalable" PM consists of particles less than 10 microns in diameter, and is defined as "suspended particulate matter" or PM₁₀. Fine particles are less than 2.5 microns in diameter (PM_{2.5}). PM_{2.5}, by definition, is included in PM₁₀. The State of California regularly reviews scientific literature regarding the health effects and exposure to PM and other pollutants. On May 3, 2002, the California Air Resources Board (CARB) staff recommended lowering the level of the annual standard for PM₁₀ and establishing a new annual standard for PM_{2.5} (particulate matter 2.5 micrometers in diameter and smaller).

Particulate Matter includes dust, dirt, soot, smoke and liquid droplets that are light enough to be suspended in the air for a prolonged period of time and are directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires and natural windblown dust. Particles formed in the atmosphere by condensation or the

transformation of emitted gases such as SO₂ and VOCs are also considered particulate matter.

Based on studies of human populations exposed to high concentrations of particles (sometimes in the presence of SO₂) and laboratory studies of animals and humans, there are major effects of concern for human health. These include effects on breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, carcinogenesis and premature death. The major subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza, asthmatics, the elderly and children.

Discussion of Checklist Answers:

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

Under the federal Clean Air Act, Tehama County is currently considered in attainment or unclassified for all national ambient air quality standards, except for ozone. Previous to 2008, Tehama County was considered in attainment for ozone, however, in March 2008 the EPA revised the attainment standard for ozone to 75 parts per billion (ppb) from 84 ppb.⁶ The County is a nonattainment area for the more stringent state ambient air quality standards for ozone and PM₁₀. The air districts of the NVSB have jointly prepared and adopted a uniform air quality attainment plan addressing ozone and PM₁₀ (NSVAB, 2007).

Tehama County currently exceeds the State's ambient standards for ozone (smog) and particulates (fine, airborne particles). Consequently, these pollutants are the focus of local air quality policy, especially when related to land use and transportation planning. Even with application of measures to reduce emissions for individual projects, cumulative impacts are unavoidable when ozone and/or particulate emissions are involved. For example, the primary source of emissions contributing to ozone is from vehicles. Any project that generates vehicle trips has the potential of contributing incrementally to the problem.

The Tehama County Air Pollution Control District (TCAPCD) utilizes strategies to reduce emissions associated with new and modified indirect sources of pollution in an effort to accurately determine and mitigate project-related impacts to the extent feasible. Emission reduction goals of 20 to 25 percent are established depending on the projected level of unmitigated emissions for a project. Mitigation thresholds are established for the important regional/local pollutants, including: Reactive Organic Gases (ROG) and Oxides of Nitrogen (NOx), which are ozone precursors, and Inhalable Particulate Matter

⁶ Alan Abbs, Air Pollution Control Officer, TCAPCD, April 11, 2008 correspondence

10 Micron (PM₁₀). The mitigation thresholds for these pollutants are tiered at two levels as follows:

Level "A"

25 pounds per day of NO_x
25 pounds per day of ROG
80 pounds per day of PM₁₀

Level "B"

137 pounds per day of NO_x
137 pounds per day of ROG
137 pounds per day of PM₁₀

If a project has unmitigated emissions less than the Level "A" threshold, then it is viewed as a minor project (from an air quality perspective) and only application of Standard Mitigation Measures (SMM) is required to try to achieve at least a 20 percent reduction in emissions, or the best reduction feasible otherwise. Land uses that generate unmitigated emissions above Level "A" require application of appropriate Best Available Mitigation Measures (BAMM) in addition to the SMM in order to achieve a net emission reduction of 20 percent or more. If after applying SMM and BAMM a use still exceeds the Level "B" threshold, then a minimum of 25 percent of the unmitigated emissions exceeding 137 pounds per day must be offset by reducing emissions from existing sources of pollution; otherwise, an Environmental Impact Report is required.

The *Air Quality Element of the Redding General Plan* and Butte County AQMD *Indirect Source Review Guidelines* provide estimated ranges of efficiencies for mitigation measures. Assuming an average efficiency for each measure, the mitigation measures advanced (**AQ-1** and **AQ-2**) can be expected to reduce ROG, NO_x, and PM₁₀ emissions by about 30% for construction, area source, and operation (vehicle) emissions.

Under policy of the TCAPCD, the Project has the potential to impact air quality primarily in two ways: (1) the Project would generate vehicle trip emissions and area source emissions (with NO_x, ROG, and PM₁₀) that contribute cumulatively to local and regional air quality conditions; and (2) fugitive dust (particulate/PM₁₀) emissions are possible during construction activities.

In order to calculate the emissions for the key pollutants previously discussed, the current *URBEMIS2007* for Windows air quality computer model (*Version 9.2.4*) was used as prescribed by the TCAPCD. Air quality modeling was undertaken for the construction of 411 RHNA dwelling units over a five year span between 2009 and 2014. Based on the *Housing Element Update*, 100 of the residential dwelling units were multi-family. In addition, air quality modeling was undertaken for the proposed 1,346 dwelling units that could result from residential development within the 260 acres proposed for rezoning. Of the total dwelling units, 346 were multi-family units.

RHNA construction emission modeling was not undertaken since development of the 411 dwelling units will occur over a seven-year period of time and in small development increments reflective of past development. As an example, the Salado Orchards Apartments constructed in 2008 totaled 48 units. These dwelling units were not included in the modeling since they already exist, however, they will be counted towards meeting the 2007-2014 RHNA goals. **Table 4** identifies several approved tentative tract maps that range from 14 to 134 dwelling units, an average of approximately 61 dwelling units per parcel. Such size developments are usually constructed over an approximate one to two year time period whereby air quality impacts are short-term and not cumulatively considerable. In addition, construction air-quality mitigation measures are implemented as identified in **Mitigation Measure AQ-1** to reduce construction emission impacts to **less than significant** levels.

Construction modeling for the proposed rezoning of the 260 acres previously identified was also not undertaken since construction activities will not result due to the rezoning. However, at the time of parcel development, depending on the size of the proposed project(s) construction emission modeling may be required as part of the environmental review for the project(s). Should the project(s) size be typical of past City development, it is likely that utilization of **Mitigation Measure AQ-1** will reduce construction emission impacts to less **than significant** level

The modeling results identified in **Table AQ-3** indicate that cumulative emissions from the RHNA units could generate emissions of key pollutants that are above Level "A" thresholds, but below Level "B" thresholds. Through the application of Level "A" and some Level "B" BMMs, as reflected in the identified mitigation measures, further emission reductions could be accomplished. Potential cumulative impacts will be **less than significant**.

TABLE AQ-3			
RHNA Area Source and Operational (Vehicle) Emissions			
Emission	Emissions (lbs/day)¹		
	ROG	NOx	PM₁₀
Area Source	22.26	4.86	0.06
Operational (Vehicles)	48.74	68.43	43.18
Total	71.0	73.29	43.24
Level "A" Thresholds	25	25	80
Level "B" Thresholds	137	137	137
Level "B" Exceedance	N/A	N/A	N/A

¹ Winter emissions were utilized since they are higher than summer emissions.

As previously noted, air quality modeling was undertaken for the proposed 1,348 dwelling units that could result from residential development within the 260 acres proposed for rezoning. Approximately 1,346 residential units could possibly be developed after annexation and entitlement applications and approvals. However, ultimate development would not occur during the Housing Element Plan period and based on the average housing construction growth rate of 1.3 percent per year, development of 1,346 dwelling units could take a minimum of 30 years.

The modeling results identified in **Table AQ-4** indicate that the development and construction of the 1,346 residential units resulting from the rezoning of the 260-acres proposed to eventually be annexed, could generate emissions of key pollutants that are above Level "A" and Level "B" thresholds. Through the application of Level "A" and some Level "B" BMMs, as reflected in the identified mitigation measures, emission reductions can be reduced but not to levels that are below the Level "B" thresholds. Resultant regional air quality emissions, although projected over a 30 year period, will remain **cumulatively significant**.

Several options are available with respect to the Level "B" threshold exceedance due to the rezoning. The first is the preparation of an EIR. The second is to undertake a detailed evaluation of the additional mitigation measures which would require further evaluations, that include but are not limited to: determining distances to shopping, bus routes, or employment centers and incorporate these factors into the modeling instead of the defaults; and, adding mitigation measures above and beyond what is normally acceptable, such as providing lower emission vehicles to future residences, or establishing a transit route within the annexation area and incorporating this information into additional modeling. The third is to reduce the number of residential dwelling units that could be developed so that the Level "B" thresholds are not exceeded.

TABLE AQ-4			
Prezoning Area Source and Operational (Vehicle) Emissions			
Emission	Emissions (lbs/day) ¹		
	ROG	NOx	PM ₁₀
Area Source	81.37	17.18	0.20
Operational (Vehicles)	131.79	188.37	154.35
Total	213.16	205.55	154.55
Level "A" Thresholds	25	25	80
Level "B" Thresholds	137	137	137
Mitigation Reductions	63.95	61.67	46.37
Emissions	149.21	143.88	108.18
Level "B" Exceedance	12.21	6.88	N/A

¹Winter emissions were utilized since they are higher than summer emissions.

The third option was selected recognizing that the option does not preclude the City from pursuing the 1,346 potential dwelling units for the area to be prezoned pursuant to the preparation of an EIR for the prezoning action or undertaking further modeling studies.

Table AQ-5 reflects air quality modeling undertaken for the development of a maximum of 1,230 dwelling units as part of the prezoning action for the 260-acre area identified for future annexation. Of the total dwelling units, 300 were multi-family units.

TABLE AQ-5			
Prezoning Area Source and Operational (Vehicle) Emissions			
Emission	Emissions (lbs/day) ¹		
	ROG	NOx	PM ₁₀
Area Source	74.47	15.79	0.16
Operational (Vehicles)	120.92	172.82	141.60
Total	195.39	188.61	141.78
Level "A" Thresholds	25	25	80
Level "B" Thresholds	137	137	137
Mitigation Reductions	58.62	56.58	42.53
Emissions	136.77	132.03	99.25
Level "B" Exceedance	N/A	N/a	N/A

¹Winter emissions were utilized since they are higher than summer emissions.

The modeling results identified in **Table AQ-5** indicate that cumulative emissions from the construction of a maximum of 1,230 residential units within the area to be annexed could generate emissions of key pollutants that are above Level "A" thresholds, but below Level "B" thresholds. Potential regional impacts will be cumulatively **less than significant**. Therefore, **Mitigation Measure AQ-3** is advanced for consideration.

Mitigation Measure AQ-1

Subject to a final determination by the TCAPCD, all construction contracts shall include construction dust mitigation measures that contain the following minimum criteria and related to the use of diesel equipment, all construction contracts will comply with California Air Toxic Control Measures related to off-road, on-road, stationary, portable and other applicable category of such equipment. Such measures shall apply to all phases of construction. Examples of measures that shall be used to reduce construction dust and fugitive dust pursuant to TCACD Rule 4:24 for "Large Operations," include, but not limited to:

- *Provide emission offsets for PM₁₀ emissions exceeding the 137 lbs. per day standard pursuant to a formula developed by the County with identifiable source of emission credits which can be acquired.*
- *Alternatives to open burning of vegetative material on the project sites shall be used unless otherwise deemed infeasible by the TCAPCD. Cleared vegetation shall be treated by legal means other than open burning, such as chipping or mulching for conversion to biomass fuel.*
- *Contractors shall be responsible for ensuring that adequate dust control measures as set out in the TCAPCD Fugitive Dust Permit are implemented in a timely and effective manner during all phases of Specific Plan area development and construction.*
- *All material excavated, stockpiled, or graded shall be watered a minimum of twice per day during dry conditions to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air quality standard. Watering will occur preferably in the mid-morning and after work is completed each day.*
- *All construction areas (including unpaved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions.*
- *All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved roads.*
- *All land clearing, grading, earth moving or excavation activities shall be suspended when winds exceed 20 miles per hour.*
- *All inactive portions of the development site shall be seeded and watered (or other equivalent erosion control products installed) until a suitable grass cover is established.*
- *The applicant shall be responsible for applying non-toxic soil stabilizers (according to manufacturer's specifications) to all inactive Specific Plan construction areas.*
- *All trucks hauling dirt, sand, soil or other loose material shall be covered or shall maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the trailer) in accordance with the requirements of CVC Section 23114.*
- *All material transported off-site shall be either sufficiently watered or securely covered to prevent a public nuisance.*
- *During initial grading, earth moving, or site preparation, contractors shall be required to construct a paved (or dust palliative treated) apron, at least 100 feet in length, onto the Specific Plan area from the adjacent paved road(s).*
- *Paved streets adjacent to the construction sites shall be swept or washed at the end of each day to remove excessive accumulations of silt and/or mud which may have accumulated as a result of Specific Plan area construction activities.*
- *Adjacent paved streets shall be swept at the end of each day if substantial volumes of soil materials have been carried onto adjacent public paved roads from the construction areas.*
- *Wheel washers shall be installed where Project vehicles and/or equipment access paved streets from unpaved roads.*

- *Contractors shall provide documentation to the TCAPCD demonstrating that the heavy-duty (greater than 50 horsepower) off-road vehicles to be used in the construction of the Project, including owned, leased and subcontractor vehicles, will meet CARB standards for NOx and particulate matter.*
- *Contractors shall be responsible to ensure that all construction equipment is properly tuned and maintained.*
- *Equipment operators shall be instructed to minimize equipment idling time to five (5) minutes.*
- *Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators whenever possible.*
- *Equipment used in grinding wood waste will require either state registration through the Portable Equipment Registration Program, or a stationary source permit and authority to construct through the TCAPCD.*
- *Equipment used in the process of making asphalt such as sand and gravel screens or asphalt batch plants will require either state registration through the Portable Equipment Registration Program, or a stationary source permit and authority to construct through the TCAPCD.*

Mitigation Measure AQ-2

The City of Corning shall require the implementation of Standard Mitigation Measures and feasible Best Available Mitigation Measures for all residential developments. The following measures constitute potentially suitable options:

- *Orient residences and install landscaping that takes advantage of passive solar design principles. A principal component is to increase energy efficiency by 20 percent over California Title 24 minimum requirements.*
- *Provide for pedestrian access between higher density developments and TRAX bus service stops.*
- *Where feasible provide bus turnouts, passenger benches, and shelters.*
- *Use energy-efficient lighting (includes controls) and process systems such as water heaters, furnaces and boiler units.*
- *Utilize low-NOx hot water heaters.*
- *Install solar water heaters for at least 25 percent of the residential units.*
- *Utilize energy-efficient and automated controls for air conditioning.*
- *Provide for synchronized traffic signals along streets affected by Project development as deemed necessary by the local transportation planning agency.*
- *All new wood burning devices shall be EPA Phase II certified.*
- *Contribute to traffic-flow improvements (e.g., right-of-way, capital improvements, etc.).*
- *Install an electrical outlet at the front and back of all residential units for electrical yard equipment.*

Mitigation Measure AQ-3

The City of Corning, as part of their rezoning action, will rezone the area proposed for future annexation(s) so that not more than 1,230 residential dwelling units can be developed.

d. Expose sensitive receptors to substantial pollutant concentrations.

The CARB published an air quality/land use handbook (CARB, 2005). The handbook, which is advisory and not regulatory, was developed in response to recent studies that have demonstrated a link between exposure to poor air quality and respiratory illnesses, both cancer and non-cancer related. The CARB handbook recommends that planning agencies strongly consider proximity to these sources when finding new locations for “sensitive” land uses. In its interpretation of the CARB handbook, the City of Corning considers sensitive land uses to include medical facilities, daycare centers, schools and playground areas for public assembly, convalescent facilities, and nursing homes, but not including residences (“sensitive receptors”). Air pollution sources of concern include freeways, rail yards, ports, refineries, distribution centers, chrome plating facilities, dry cleaners and large gasoline service stations.

Key applicable recommendations in the handbook include taking steps to avoid siting new, sensitive receptors:

- Within 500-feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day;
- Within 300-feet of any dry cleaning operation (for operations with two or more machines, provide 50-feet)

The CARB’s 500-foot setback recommendation for sensitive receptors near freeways is based on studies largely conducted at major freeways in Southern California. The primary source of health risk is from diesel particulate, and the recommended setback reflects a “typical” urban freeway carrying 10,000 to 20,000 trucks per day. The most recent truck counts for I-5 abutting the City between Finnell Avenue and Liberal Avenue ranges from 6,080 daily trucks at Finnell Avenue to 6,626 daily trucks at Liberal Avenue. (CALTRANS, 2007).

Since the daily number of trucks traveling on adjacent I-5 ranges from 35 to 70 percent of the number used in establishing the setback of 500 feet, a minimum setback of 300-feet is considered to be adequate to protect future City residents from unnecessary health risks from freeway traffic. The following mitigation measure will reduce potential impacts to a level of ***less than significant***.

Mitigation Measure AQ-4

Sensitive Receptors within the City can be less than 500-feet from the nearest edge of I-5. Approval of structures associated with sensitive receptors closer than 500-feet could be permitted if a project proponent can demonstrate through air quality modeling or monitoring that locating such uses at a distance less than 500-feet does not result in health risks to sensitive receptors located greater than those at 500-feet.

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

Due to the nature of the proposed Project, odors are not an issue and there are **no impacts**. Furthermore, potential residential development sites are not located in the vicinity of any existing land uses that generate objectionable odors.

Conclusion: Due to the nature of the proposed Project and mitigation measures proposed, exposure to pollutant concentrations will be **less than significant**.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES <i>Would the project:</i>				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?		X		
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		X		
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?		X		
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

Existing Environmental Setting: According to the *City of Corning General Plan*, three general vegetation or habitat types are found in the planning area: valley grasslands, riparian corridors,

and agricultural lands. A majority of original natural vegetation within the City of Corning has been disturbed or eliminated by development of the City.

Valley grasslands exist predominantly in the northeastern section of the city, and contain primarily introduced grasses. These lands are used mainly for grazing. Specific plant species commonly found in these areas include wild oats, fescues, bromes, filaree, clover, needlegrass, medusa-head, bluegrass, California poppy, and gum plant. These areas also provide valuable habitat for wildlife.

The majority of the naturally occurring riparian areas in Corning have been altered by human activity. Burch Creek, a perennial creek, is located to the south of the City. Jewett Creek, an intermittent creek, is also located south of the City, north of Burch Creek. Burch Creek's riparian corridor is less disturbed by human activities than Jewett Creek. Riparian vegetation associated with both of these streams includes cottonwoods, willows, blackberry vines, cattails, sedges, sycamore, eucalyptus, California black walnut, oak, alder, and giant reed.

Agricultural vegetation is the most common habitat type found in the City. The primary orchard crops produced in and around Corning are olives, nuts, and fruits.

In terms of wildlife, the combination of agricultural uses and urban uses is generally not conducive to large populations of wildlife. Valley grasslands (discussed above) do provide some habitat value for song and game birds, raptors, coots, doves, pheasant, quail, reptiles, insects, jack rabbits and cottontails, coyotes, and deer. Intact and undisturbed riparian corridors can provide valuable habitat for a number of mammal, reptile, bird, and fish species. However, there is not much intact and undisturbed riparian corridor habitat remaining in Corning. Agricultural lands can provide habitat similar to that of the valley grasslands, and support similar species. Irrigated croplands can simulate wetland environments and provide support for migrating waterfowl.

Discussion of Checklist Answers:

- a. *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*
- b. *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*
- c. *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

The California Department of Fish and Game (DFG) maintains the California Natural Diversity Data Base (CNDDDB), which lists positive sightings of special status plant and animal species. The data base is modeled after the United States Geological Survey 1:24,000 topographic quadrangles. The City of Corning is covered in the Corning quadrangle. A search of the CNDDDB indicates the potential presence of the following species within the Corning quadrangle, as presented in **Table B-1**. **Table B-1** also lists if the species is considered threatened or endangered on the state and federal levels, a DFG listing, and the California Native Plant Society listing.

Table B-1 CNDDDB Results for the Corning Quadrangle					
Scientific Name	Common Name	Federal Status	State Status	DFG Status	CNPS List
<i>Buteo swainsoni</i>	Swainson's hawk	None	Threatened		
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	Candidate	Endangered		
<i>Athene cunicularia</i>	burrowing owl	None	None	Species of Concern	
<i>Emys (=Clemmys) marmorata marmorata</i>	northwestern pond turtle	None	None	Species of Concern	
<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	Threatened	None		
<i>Downingia pusilla</i>	dwarf downingia	None	None		2
<i>Paronychia ahartii</i>	Ahart's paronychia	None	None		1B
<i>Chamaesyce ocellata ssp. rattanii</i>	Stony Creek spurge	None	None		1B
<i>Gratiola heterosepala</i>	Boggs Lake hedge-hyssop	None	Endangered		1B
<i>Agrostis hendersonii</i>	Henderson's bent grass	None	None		3

According to the City's *General Plan Conservation Element*, there is also the potential for Valley elderberry longhorn beetle, listed as threatened by the federal EPA, and the tri-colored blackbird, a State species of special concern, to occur in the Corning area.

Development of existing parcels and those proposed for either general plan amendment or rezoning within the City as identified in the *Housing Element Update* are located within areas that are either disturbed and/or surrounded by existing development. It is highly unlikely that special species are present. However, when development of the parcels is proposed determinations of what type of biological studies, if any, need to be undertaken. The potential impact on special status species is **less than significant**.

The 260-acre area proposed for rezoning for future annexation is also significantly disturbed due to existing rural residential development and associated agricultural activities, and it is highly unlikely that special status species will be impacted. However, it is highly unlikely that special species are present. However, when specific development is proposed determinations of what type of biological studies, if any, need to be undertaken. The potential impact on special status species is **less than significant**.

Review of the National Wetland Inventory (NWI) map for the Corning quadrangle identified several wetland features.⁷

Existing vacant parcels within the City identified in **Table 3** that could potentially impact Jewett Creek, a Riverine designated wetland feature, include Parcels 20 and 27 which are 4.96 and 7.15 acres in size, respectively. **Mitigation B-1** will provide mitigation and reduce potential impacts to a **level of insignificance**.

⁷ U.S. Fish & Wildlife Service National Wetlands Inventory. July 27, 2009. Wetlands Mapper. <http://www.fws.gov/wetlands/Data/Mapper.html>

Parcels C17 and C19 which are 0.30 and 10.87 acres in size, respectively are identified in **Table 5** as parcels for which a general plan amendment and rezone to Multi-Family Residential and R-3, respectively, is recommended. Development of these parcels could potentially impact Jewett Creek. However, adherence to **Mitigation Measure B-1** will address impacts and reduce them to a **level of insignificance**.

Based on the NWI Map, there not any wetland features within the 260-acre area proposed for rezoning and future annexation(s). However, this does not preclude the potential for wetlands, in particular vernal pools, to exist within the area. Therefore, **Mitigation Measures B-2** and **B-3** are advanced to address potential wetlands and vernal pools, with associated special status features, within the area to be rezoned. These measures will reduce potential impacts to **below a level of significance**.

Mitigation Measure B-1

A 50-foot set back from the riparian dripline of Jewett Creek or from the top of bank, whichever is greater is recommended to provide protection of Jewett Creek and its riparian corridor. If construction of storm drainage outlets or other work must occur within the Creek corridor, a botanical survey should be conducted in the spring to determine if the activity would affect any special status plants. If plants are present and would be affected, specific mitigation should be determined in consultation with DFG. Mitigation would likely consist of modifying the project to avoid special status plant populations or removing and relocating the near surface soils following seed set.

Furthermore, if installation of storm drain outlets or other work is required in the stream zone, earth-moving construction activities in or adjacent to the creek should be restricted to periods when the creek is dry, Best Management Practices should be implemented for erosion control, and storm water runoff should be pre-treated prior to release into Jewett Creek.

Although in-water future project work is not proposed, indirect effects to special-status fish species such as the Chinook salmon and Central Valley steelhead in the Sacramento River during construction, could result if storm water runoff from project sites enters Jewett Creek and degrades spawning or rearing habitat downstream. However, by restricting earth-moving construction activities in or adjacent to Jewett Creek to dry periods, Best Management Practices implemented for erosion control, and pre-treatment of storm water runoff prior to its release, will result in no adverse effects to special-status fish species.

Additional measures to protect species associated with the Jewett Creek corridor may be required by the Corps, DFG, and/or Regional Water Quality Control Board if the corridor is directly impacted by project activities. If a Corps permit is required, the Corps may require endangered species consultation with the National Marine Fisheries Service. The Corps would incorporate the conservation measures recommended by NMFS into its permit.

Mitigation Measure B-2

To the extent practicable, the discharge or dredged or fill material into “waters of the U.S.,” including wetlands, shall be avoided (this also includes waters not subject to Corps jurisdiction, but subject to RWQCB jurisdiction). This includes avoiding activities that would obstruct the flow of, or alter the bed, channel, or

bank of any intermittent or ephemeral creeks. If complete avoidance is implemented, no further measures are necessary. If complete avoidance is not practicable, the following measures shall be implemented:

- *Prior to any discharge of dredged or fill material into “waters of the U.S.”, including wetlands, authorization under a Nationwide Permit or Individual Permit shall be obtained from the Corps. For any features determined to not be subject to Corps jurisdiction during the verification process, authorization to discharge (or a waiver from regulation) shall be obtained from the RWQCB. For fill requiring a Corps permit, water quality certification shall be obtained from the RWQCB prior to discharge of dredged or fill material.*
- *Prior to any activities that would obstruct the flow of, or alter the bed, channel, or bank of any intermittent or ephemeral creeks, notification of streambed alteration shall be submitted to the DFG; and, if required, a streambed alteration agreement shall be obtained.*
- *Construction activities that will impact “waters of the U.S.” shall be conducted during the dry season to minimize erosion.*
- *Appropriate sediment control measures to protect avoided “waters of the U.S.” shall be in place prior to the onset of construction and shall be monitored and maintained until construction activities have ceased. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Excess excavated soil shall be used on site or disposed of at a regional landfill or other appropriate facility. Stockpiles that are to remain on the site through the wet season shall be protected to prevent erosion (e.g. silt fences, straw bales).*
- *All pedestrian and vehicular entry into “waters of the U.S.”, including wetlands, to be avoided shall be prohibited during construction.*
- *Loss of wetlands shall be compensated at a minimum of a 2:1 creation ratio (i.e. two acres created for each acre destroyed). This can be accomplished through purchase of appropriate credits at a Corps approved mitigation bank, appropriate payment into a Corps approved in-lieu fee fund, or on-site or off-site creation, monitoring, and maintenance (as approved by the Corps or RWQCB).*
- *Loss of “other waters” shall be compensated through purchase of appropriate credits at an Corps approved mitigation bank, appropriate payment into an Corps approved in-lieu fee fund, or through placement of avoided waters and associated riparian buffers into a conservation easement or similar protective mechanism. The amount of avoided waters and riparian buffers to be permanently protected shall be sufficient to offset the impact and shall be determined by the Corps and the applicant during the permitting process.*
- *Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e. Corps, RWQCB, DFG) shall be implemented and completed. All measures contained in the permits or associated with agency approvals shall be implemented.*

Mitigation Measure B-3

Conduct a USFWS protocol-level survey for the vernal pool fairy shrimp and vernal pool tadpole shrimp within suitable habitats occurring within the proposed

project site, or assume the species are present. If the species are not detected during the protocol-level survey, no further measures or mitigation is required. If either of the species is detected during protocol-level surveys or the presence of the species is assumed in-lieu of conducting surveys, and proposed activities will result in direct or indirect impacts to potential habitat, the following measures shall be implemented:

- *Formal consultation with the USFWS shall be initiated under Section 7 or Section 10 of the ESA, as appropriate. No direct or indirect impacts to suitable habitat for these species shall occur until Incidental Take authorization has been obtained from the USFWS.*
- *For every acre of habitat directly or indirectly affected, at least two vernal pool preservation credits shall be dedicated within a USFWS-approved ecosystem preservation bank. With USFWS approval, appropriate payment into an in-lieu fee fund or on-site preservation may be used to satisfy this measure.*
- *For every acre of habitat directly affected, at least one vernal pool creation credit will be dedicated within a USFWS-approved habitat mitigation bank. With USFWS approval, appropriate payment into an in-lieu fee fund, on-site creation, or off-site creation may be used to satisfy this measure.*

- d. *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

The proposed Project will not interfere with the movement of any native resident wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites since none exist within the City or the area proposed for rezoning and future annexation(s). Furthermore, the majority of the sites are disturbed due to agricultural activities and residential development on some parcels.

Mitigation Measure B-1 will reduce potential impacts on native resident or migratory fish species to a **less than significant** level.

- e. *Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- f. *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The proposed Project will not conflict with any policies to protect and conserve biological resources and habitats due to the essentially developed nature of the City and area proposed for annexation and rezoning. Furthermore, the *California Oak Woodlands Conservation Act* does not apply to the City.

The City does not currently have a tree preservation policy or specific ordinances protecting biological resources, although the *General Plan Conservation Element* does contain a goal to “[p]rotect remaining wildlife populations and native vegetation associations, particularly endangered species, within the planning area”. In addition, the Conservation Element calls for the maintenance and protection of the remaining riparian

habitat areas in the City. Implementation measures found in the *Conservation Element of the General Plan* call for the preparation, adoption, and implementation of a maintenance and enhancement plan for Jewett and Burch Creeks and any other riparian areas. Adherence to these goals, and other State and federal regulations would reduce potential impacts to a **less than significant** level.

Conclusion: The Implementation of the mitigation measures advanced will reduce potential biological impacts to a **less than significant level**.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES <i>Would the project:</i>				
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				X
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				X
d. Disturb any human remains, including those interred outside of formal cemeteries?		X		

Existing Environmental Setting: The *City of Corning General Plan* does not specifically address historical and cultural resources. However, according to the *Tehama County General Plan*, prior to Euro-American settlement, the upper Sacramento Valley and the foothill areas to the east of the Sacramento River were the territory of the Wintun Indian Tribes. Two major archaeological sites associated with this society are the Los Molinos Vicinity- - Ishi Site in Deer Creek Canyon and the Sulphur Creek Archaeological District in the Mill Creek Vicinity. Both of these areas are listed in the Federal Register of Historic Places.

Excavations have also uncovered several hundred prehistoric sites, including burial sites, west of the Sacramento River where the Nome Lackee (Nomelaki) tribe is known to have settled. Over 250 settlement sites have been identified along the Sacramento River in Tehama County, as well as several along river tributaries in the foothill regions of the County.

In 1843 General John Bidwell and Major P. B. Reading, on horseback, made a reconnaissance survey of the upper Sacramento Valley region, locating and mapping the creeks and river. In 1845 to 1846 William Moon and his partner, Henry L. Ford, built a house along the Sacramento River near the future town of Corning, destined to become the historic Moon House.

Discussion of Checklist Answers:

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

pursuant to Section 15064.5?

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

Although there are no identified historical, paleontological, or known human remains within the project area, there is a possibility that historic resources may be encountered during grading activities associated with development and the construction of associated infrastructure. Any proposed development would be subject to the environmental review process, which includes standard mitigation measures to protect historical and pre-historical resources. In addition, the *Housing Element Update* includes Goal HC-2, which encourages the preservation of the City's historical and cultural heritage through innovative reuse of historical structures, and designation of local historical landmarks. Objective HC-3 additionally calls for the protection of historically significant structures and neighborhoods.

Construction of housing on individual parcels identified in **Table 3**, while causing additional ground disruption due to trenching, will impact already disturbed areas. As a result of the existing significantly graded and disturbed conditions of the area, the likelihood of the any potentially significant impacts on prehistoric or cultural resources is highly unlikely. However, a standard mitigation measure that is applied to all construction projects will address potential impacts should any evidence of prehistoric or cultural resources be uncovered.

Mitigation Measure CR-1

Should artifacts or unusual amounts of stone, or shell be uncovered during construction activities, activities shall cease in the area until a qualified archaeologist evaluates the materials. The archaeologist shall examine the findings, assess their significance, and offer recommendations for procedures deemed appropriate to either further investigate or mitigate adverse impacts to those cultural resources that have been encountered (e.g., excavate the significant resource). These additional measures shall be implemented.

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

Although it is not anticipated that the proposed Project grading will impact prehistoric or cultural resources, the following measure is advanced if during construction, resources are uncovered.

Mitigation Measure CR-2

If human bone or bones of unknown origin is found during construction, all work within 50 feet of the find shall stop until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary. The archaeologist may recommend contacting the County Coroner. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission who shall notify the person it believes to be the most likely descendant. The most likely descendant shall work with the City to develop a program for reinternment of the human remains and any associated artifacts. No additional work shall take place within the immediate vicinity of the find until the identified appropriate actions have been completed.

TABLE GS-1 Soil Series			
Series	Erodibility	Permeability	Expansivity
Altamont	Low	Very Slow	High
Arbuckle	Low	Slow	Moderate
Clear Lake	Low	Very Slow to Slow	High
Corning	Low	Slow	High
Cortina	Low	Medium	High
Hillgate	High	Slow	High
Maywood	Median to High	Median to Very Slow	Low
Peters	Low	Slow	High
Tehama	Low to High	Slow	Moderate
Tuscan	Median	Slow	Moderate

The City is not located within an Alquist-Priolo Special Study Zone, nor is Tehama County. The closest surface fault to Corning is the Elder Creek Fault, approximately 11 miles to the west. The Cleveland Hills Fault, most recently active in 1975, lies 51 miles away from the City. The threat of a potentially damaging seismic event in this area is slight.

In terms of seismic shaking, the different geologic materials that underlie the region have different shaking characteristics. The areas which are comprised of alluvium from the Sacramento River have more potential for ground shaking than those comprised of consolidated bedrock. Due to the minimal possibility of a strong intensity earthquake event, and the depth of the groundwater in Corning, it is not likely that liquefaction will occur in the planning area. Landslides are also unlikely as the slope and topography in Corning are gentle, although there is a limited risk of landslides may occur along the creeks in the area (Blackburn Moon Drain, Burch Creek, and Jewett Creek). These areas also carry a slight risk of erosion hazards.

Tsunami is highly unlikely to occur as the City is not located in any proximity to an ocean. Likewise, the risk of seiche is remote as the nearest water bodies (Black Butte Lake and Lake Shasta) are too far away to affect Corning. Mount Lassen, the nearest center of potential volcanic activity, is located approximately 55 miles northeast of Corning, minimizing the potential for volcanic hazards to impact the City and its residents.

Discussion of Checklist Answers:

- a. *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: i. Rupture of a know earthquake fault as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a know fault? ii. Strong seismic ground shaking? iii. Seismic-related ground failure, including liquefaction? iv. Landslides?*

- c. *Be located on a geologic unit or soil that is unstable, or that would become unstable as result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Active earthquake faults can be found throughout California; however the City is located in an area that is considered to be relatively free of seismic hazards in the immediate vicinity. The most significant seismic activity that can be anticipated in the area is ground shaking generated by seismic events on distant faults. The closest of which is the Elder Creek Fault, which lies approximately five miles to the southwest. There is no evidence of a “potentially active fault,” located in the area, which could result in significant damage to structures and associated infrastructure.

The City and SOI is not affected by Alquist-Priolo Earthquake Fault Zones as of May 1, 1999, as determined by the California Geologic Survey. The City and SOI is located in a low severity earthquake area, as designated by the California Geologic Survey and are considered to be at low risk for impacts associated with earthquakes. Consequently, the site is also at low risk for geologic events commonly associated with earthquakes, including liquefaction, subsidence, lurch cracking, and groundshaking. There is **no potential significant impact** with respect to potential seismic related impacts.

Landslides can be triggered by heavy rains or earthquakes, and result in the sometimes rapid movement of soil from areas of higher elevation to those of lower elevation. The potential of rock slide is negligible since slopes are significantly flatter than 40 percent. There are **no impacts** associated with potential landslides.

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

Excessive erosion requires time and expense to make repairs and could cause violations of discharge requirements. Prevention of erosion usually is less costly than repairs. Erosion control methods are those methods that prevent soil from moving. Soil particles are set in motion either by raindrop impact or flowing water. The faster and deeper the water flows, the more erosion will occur. To reduce erosion, soil is compacted to bond soil particles together and/or covered to reduce raindrop impact and slow runoff. Steeper slopes are more susceptible to erosion because the runoff flows faster. Concentrated flow also increases erosion because greater flow can carry greater sediment, especially on steeper slopes. Erosion control practices include straw mulching for temporary (one season) control, and seeding & mulching and hyroseeding for long term control. For very steep slopes there are more intensive and costly methods including straw mats and adhesive-type hyroseeding. For roads, gravel is commonly used as a method of erosion control. Culvert downdrains and rock-lined channels are used to route concentrated flows down steeper slopes to prevent erosion from concentrated flow.

Construction requires grading and trenching resulting in disruptions, displacement, compaction, and overcovering of soils, which if not addressed, could result in **potential impacts**. Minor wind or water erosion of soils could possibly occur during construction activities. Prior to any site improvement construction, erosion control and grading plans are required to be prepared by qualified experts and submitted to the City Public Works Department, DFG, and RWQCB for review and approval. In addition, to ensure that construction does not result in soil erosion, the following mitigation shall be implemented to reduce potential erosion impacts to a **less than significant** level.

Mitigation Measure G-1

Implementation of Best Management Practices for erosion control of all disturbed areas to prevent eroded soil from entering Jewett Creek, Burch Creek and other major drainages shall be implemented. Measures include, but are not limited to the following:

- *Ground disturbing work for site development shall be limited to the dry season to the greatest feasible extent, and all erodible surfaces shall be protected by paving, mulching or landscaping, as provided in the erosion control plan (required) prior to the advent of the rainy season (September to March). Berms shall be provided around construction sites to contain*

sediment. If construction operations occur during rainy periods, use of erosion control measures, such as straw-bale dikes, gravel filters, stabilized construction entrances and sediment traps shall be required. No areas shall be left exposed during winter.

- *Surface soils may be subject to erosion when excavated and exposed to weathering. Erosion and sediment control measures shall be implemented during and after construction to conform to acceptable erosion control and City grading standards. The erosion control plan shall include revegetation of denuded areas.*
- *Drainage facilities shall be lined as necessary to prevent erosion. A detailed geotechnical investigation shall be performed to determine specific site characteristics prior to construction of the roads and other improvements. A civil engineer shall be involved during the construction phase(s) to assure that recommendations are implemented or modified as necessary.*
- *To minimize dust/grading impacts during construction; no grading activity shall be conducted when sustained wind speeds exceed 25 miles per hour. Construction activities may occur during sustained wind speeds between 10 and 25 miles per hour provided dust control measures are increased and dust and erosion impacts are controlled to the satisfaction of City inspection staff.*
- *In areas where construction activities result in soil exposure, prompt replanting with native, compatible, drought-resistant vegetation shall be required.*
- *Native vegetation shall be left undisturbed where feasible.*

- d. *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?*

Based on the information presented above, and the fact that all new residential development will undergo environmental review related to the suitability of soils for building, and the potential for exposing residential development to geologic safety hazards, including soils incapable of supporting development, impacts related to geologic conditions are considered **less than significant**. In addition, all residential construction in Corning must comply with the Uniform Building Code, on which the City's building codes are based. These codes are meant to ensure the protection of the public's health, safety, and welfare.

- e. *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?*

In December of 1999, the City completed a comprehensive upgrade of antiquated water and sewer lines. The *Housing Element Update* indicates that the new system has the capacity to serve up to 1,520 dwelling units, far more than anticipated being built during the period covered by this Update. It is anticipated that all new housing within the City will connect to the City's sewer system, resulting in **no impact** from septic systems or alternative wastewater disposal systems.

Conclusion: Potential impacts are **less than significant** due to BMPs and specific measures to be incorporated into future development projects and the construction of associated

infrastructure. Furthermore, regulations and oversight provided by the City and the RWQCB and adherence to the Uniform Building Code requirements will provide additional safeguards. Therefore, ***no mitigation measures*** are needed.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GREENHOUSE GAS EMISSIONS <i>Would the project:</i>				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?		X		X

Existing Environmental Setting: California is a substantial contributor of global greenhouse gases, emitting over 400 million tons of carbon dioxide (CO₂) each year. Climate studies indicate that California is likely to see an increase of three to four degrees Fahrenheit over the next century. Methane is also an important greenhouse gas that potentially contributes to global climate change. Greenhouse gases are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. Because primary greenhouse gases have a long lifetime in the atmosphere, accumulate over time, and are generally well mixed, their impact on the atmosphere is mostly independent of the point of emission.

Assembly Bill 32 (Global Warming Solutions Act) (AB-32) was passed by the California Legislature on August 31, 2006. It requires the State's global warming emissions to be reduced to 1990 levels by 2020. The reduction would be accomplished through an enforceable statewide cap on global warming emissions that would be phased in starting in 2012. On or before June 30, 2007, the California Air Resources Control Board (CARB) is required to publish a list of discrete greenhouse gas emissions that can be reduced. Emission reductions shall include carbon sequestration projects and best management practices that are technologically feasible and cost-effective. However, AB 32 did not provide thresholds or methodologies for analyzing a project's impacts regarding global climate change and primarily provides a timeframe for establishing plans, policies, and studies to address global climate change.

Executive Order S-3-05 also recognized the importance of preparedness in that it directed the Secretary of the California Environmental Protection Agency (Cal EPA) to lead an effort to evaluate the impacts of climate change on California and to examine adaptation measures that would best prepare the state to respond to the adverse consequences of climate change. In response to S-3-05, the Climate Action Team (CAT) was convened, which comprised representatives from Cal EPA, CARB, Integrated Waste Management, California Energy Commission, and several other state departments. The CAT prepared the *Climate Action Team Report to Governor Schwarzenegger and the Legislature* (dated March 2006), which provides an overview of scientific evidence regarding climate change as well as potential effects on California. The report also provides recommendations regarding strategies the state should pursue to reduce climate change emissions.

In light of such legislation such as AB 32 and Executive Order S-3-05, there has been much debate regarding the analysis of global climate change in CEQA documents. On April 13, 2009, the Governor's Office of Planning and Research (OPR), submitted to the Secretary for Natural Resources its proposed amendments to the state CEQA Guidelines for greenhouse gas emissions, as required by Senate Bill 97 (Chapter 185, 2007). These proposed CEQA Guideline amendments will provide guidance to public agencies regarding the analysis and mitigation of the effects of greenhouse gas emissions in draft CEQA documents. The Natural Resources Agency will conduct formal rulemaking in 2009, prior to certifying and adopting the amendments, as required by Senate Bill 97. OPR expects that guidelines will be adopted on or before January 1, 2010 consistent with Public Resources Code section 21083.05 which was added to CEQA by SB 97.

Provided in the proposed CEQA Guideline amendments is the checklist for greenhouse gas emissions which is utilized in this Initial Study even though they have not been formally adopted.

Discussion of Checklist Answers:

- a. *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

As part of the air quality modeling undertaken for the 363 RHNA dwelling units for the 2007-2014 plan period, modeling determined that operational (vehicle) carbon dioxide (CO₂) emissions would be 22,301 lbs/day and 6,207 lbs/day for area source emissions for a total of 28,508 lbs/day which would be considered **cumulatively significant** and would require mitigation. Implementation of **Mitigation Measures AQ-1** and **AQ-2** will contribute to reducing CO₂ emission impacts.

Air quality modeling for the 1,346 dwelling units that could result due to the rezoning of the area proposed for annexation(s) determined that operational (vehicle) carbon dioxide (CO₂) emissions would be 79,950 lbs/day and 21,933 lbs/day for area source emissions for a total of 101,883 lbs/day which would be considered **cumulatively significant** and would require mitigation. Implementation of **Mitigation Measures AQ-1** and **AQ-2** will contribute to reducing CO₂ emission impacts.

Proposed **Mitigation Measure AQ-3** reduces the number of dwelling units in the area proposed for rezoning to 1,230 dwelling units in order to fall below the 137 lbs/day Level "B" thresholds for ROG and NO_x emissions. Modeling determined that operational (vehicle) emissions carbon dioxide (CO₂) emissions would be 73,348 lbs/day and area source emissions would be 20,158 lbs/day for a total of 93,506 lbs/day which would be considered **cumulatively significant** and would require mitigation. Implementation of through **AQ-3** will contribute to reducing CO₂ emission impacts.

The Housing Element advances goals and policies which would contribute to the reduction in greenhouse gas emissions. Housing Element *Goal EC – Promote the Efficient Use of Energy and Contribute to the Improvement of the Air Quality of the Region* encourages energy efficient resources in new residential development as well as the existing housing stock, and identifies several actions to achieve this goal. A Key policy under this goal is *EC-5* which calls for the City "to encourage new residential development and rehabilitation projects to incorporate sustainable building design and siting, construction and operation. The City promotes and encourages development design, construction and operation that reduces energy consumption, particularly reduction in the use of fossil fuels and potable water; incorporates alternate and

renewable energy sources and recycled water; provides more natural light; reduces storm runoff; uses renewable, local, salvage and nontoxic building materials; reduces use of non-recyclable materials and promotes recycling; and improves indoor air quality.”

Policy HP-2 calls for the “Support the development of mixed-use projects encompassing residential and commercial development.” The Policy calls for the identifications of “sites that are: a) located with convenient access to schools, parks, shopping facilities, and employment opportunities or along public transportation routes that make such facilities accessible; b) minimally impacted by noise, flooding or other environmental constraints, or c) outside areas of concentrated lower income households. Develop a “Mixed Use” land use classification and zoning district. Utilize the Specific Plan process for large tracts of vacant and underdeveloped lands.” The goal and accompanying policies will serve to reduce the emission of greenhouse gases.

Emitting CO₂ into the atmosphere is not itself an adverse environmental affect. It is the cumulative increased concentration of CO₂ in the atmosphere resulting in global climate change and the associated consequences of climate change that results in adverse environmental affects (e.g., sea level rise, loss of snowpack, severe weather events). Adoption of the Housing Element is a policy program, and does not directly result in a physical effect from development and energy consumption, and therefore it will not result in an incremental contribution of CO₂ into the atmosphere. However, the rezoning action and future annexations and eventual development will result in a physical effect. But given the speculative nature of when that development may occur, it is not possible to anticipate how the development of these new housing units will contribute to cumulative atmospheric CO₂. However, mitigation measures to reduce greenhouse gas emissions during construction, area source and operational activity are presented below. However, the extent that these measures will reduce greenhouse gas emissions cannot be accurately estimated at this time, thus no reduction in emissions is taken for purposes of this evaluation.

Mitigation Measure GGE-1:

The following measures will be implemented where practicable. Although no emissions reduction was taken for the purposes of this Initial Study, the emission reduction measures will likely result in decreased greenhouse gas emissions:

- *All construction equipment shall comply with applicable California Air Resources Board requirements to ensure adequate construction dust and fugitive dust control. With respect to the use of diesel equipment, all construction contracts shall comply with California Air Toxic Control measures related to off-road, on-road, stationary, portable and other applicable category of such equipment.*
- *All applicable construction equipment shall be state registered through Portable Equipment Registration Program or shall apply for a stationary source permit from the TCAPCD.*
- *Pedestrian walkways, bikeways, trails should be provided, to reduce reliance on the automobile for short trips.*
- *Parks and school recreational facilities should be located within walking distance of residences, to reduce reliance on automobile trips.⁸*

⁸ August 6, 2009. Personal Communication: Russ Wenham Traffic Engineer – OmniMeans LTD. Acceptable walking distance to a park or school is about one-half mile.

- *In development areas, trees, shrubs, and other community landscaping will be planted. Trees and plants sequester carbon dioxide.*
- *Bicycle parking facilities should be provided in existing and proposed commercial areas and parks.*
- *The parking lots in multi-family housing developments should be shaded with native, drought resistant trees to reduce a heat island effect.*
- *Passive solar landscape design elements should be considered during landscape design. For example, deciduous trees planted on the south aspect will provide shade in the summer and allow for sunlight to shine through the branches in the winter. Evergreen trees on the north and west sides will afford protection from the summer sun.*
- *Where irrigation is necessary, low-volume and directed sprinkler heads and/or drip irrigation should be used to save water and reduce energy demand associated with potable water conveyance.*
- *Tree selection in the landscape areas should consider species that are drought resistant and that have low emissions and high carbon sequestration potential.*
- *Plants with similar water needs should be grouped together, to increase efficiency of irrigation.*
- *Outdoor lighting fixtures should have dimming features to allow for minimum illumination levels needed for safety and security. Motion sensor lighting may be installed to heighten security, while also serving to reduce unnecessary lighting.*
- *Sustainable building materials should be considered as part of building design and construction.*
- *Colors of exterior building materials and coatings should consider a balance between reflectivity and light absorption. Lighter colors with higher reflective values reduce energy consumption by absorbing less heat and reducing reliance on air conditioning systems.*
- *Where feasible, windows and/or skylights in residences should be positioned in such a manner that the need for artificial light is reduced.*
- *Where feasible, windows in residences should be positioned in such a way that cross-ventilation will occur to reduce reliance on air conditioning systems.*
- *Energy-reducing programmable thermostats should be installed in residential homes.*
- *Water-saving appliances and water conserving features should be used, including low-flow toilets, water-saving showerheads, and dishwashers. At a minimum, requirements of the Energy Policy Act of 1992 for fixture performance will be met.*
- *Participation in mandatory recycling programs, if implemented by the City, should be required of residents.*
- *The City should evaluate and consider exceeding Title 24 building standards for the purpose of increased energy efficiency including the construction of LEED certified residential and non-residential buildings.*

The California Environmental Protection Agency Climate Action Team (CAT) identified measures to reduce California's emissions to levels proposed in *Executive Order S-3-05*.

Table GGE-1 identifies how future development could be in compliance with reasonably feasible and applicable CAT measures.

TABLE GGE-1	
Project Compliance with 2007 CAT Report Greenhouse Gas Emissions Reduction Strategies	
Strategy	Compliance
<p>Vehicle Climate Change Standards AB 1493 (Pavley) required the state to develop and adopt regulations that achieve the maximum feasible and cost-effective reduction of climate change emissions emitted by passenger vehicles and light duty trucks. Regulations were adopted by the ARB in September 2004.</p>	<p>Compliance Vehicles will be in compliance with CARB vehicle standards that pertain to their model years.</p>
<p>Other Light Duty Vehicle Technology New standards will be adopted to phase in beginning in the 2017 model</p>	
<p>Heavy-Duty Vehicle Emission Reduction Measures Increased efficiency in the design of heavy-duty vehicles and an education program for the heavy-duty vehicle sector.</p>	
<p>Hydrofluorocarbon Reduction 1) Ban retail sale of HFC in small cans; 2) Require that only low GWP refrigerants be used in new vehicular systems; 3) Adopt specifications for new commercial refrigeration; 4) Add refrigerant leaktightness to the pass criteria for vehicular Inspection and Maintenance programs; 5) Enforce federal ban on releasing HFCs.</p>	<p>Compliance This measure applies to consumer products. When CARB adopts regulations for these reduction measures, any products that the regulations apply to will comply with the measures.</p>
<p>Water Use Efficiency: Approximately 19 percent of all electricity, 30 percent of all natural gas, and 88 million gallons of diesel are used to convey, treat, distribute and use water and wastewater. Increasing the efficiency of water transport and reducing water use will reduce greenhouse gas emissions.</p>	<p>Compliance Water-saving appliances and water conserving features will be used, including low-flow toilets, water-saving showerheads, and dishwashers. At a minimum, requirements of the Energy Policy Act of 1992 for fixture performance will be met</p>
<p>Building Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the CEC to adopt and periodically update its building energy efficiency standards (that apply to newly constructed buildings and additions to and alterations to existing buildings).</p>	<p>Compliance Project and residential construction will be compliant with updated Title 24 standards for building construction.</p>
<p>Appliance Energy Efficiency Standards in Place and in Progress Public Resources Code 25402 authorizes the Energy Commission to adopt and periodically update its appliance energy efficiency standards (that apply to devices and equipment using energy that are sold or offered for sale in California).</p>	<p>Consistence Appliances purchased for use in residence will meet or exceed existing energy efficiency standards.</p>

Source: State of California, Environmental Protection Agency, Climate Action Team, 2007.

It should be recognized, however, that due to the worldwide scope of global climate change, it is not anticipated that any single development project or a group of small projects within a City the size of Corning will have a substantial effect on global climate change. No single development, developments, or a City can be deemed individually responsible for global temperature increases and rising sea levels. Instead, greenhouse gas emissions from the existing and future development within the City will combine with greenhouse gas emissions emitted across California, the United States, and the world to cumulatively contribute to global climate change.

Although implementation of the CAT strategies will likely reduce GHG emissions to the extent possible, it is not possible to specifically quantify the reduction in greenhouse gases that will result from implementation of CAT strategies and programs. However, consistency with CAT strategies is consistent with the strategies suggested to reduce California's emissions to the levels proposed by *Executive Order S-3-05*. Therefore, the incremental contribution to climate change impacts is **less than significant** as future development could be considered consistent with applicable CAT strategies.

- b. *Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?*

The proposed Project does not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases and therefore, there is **no impact**.

Conclusion: Implementation of specific programs identified in the *Housing Element Update*, as well as future specific development proposals, will undergo their own subsequent environmental review, including an assessment of impacts associated with greenhouse gases. The project impact to global warming and climate change is considered **less than cumulatively significant**.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS <i>Would the project:</i>				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
d. Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.				X
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would				X

the project result in a safety hazard for people residing or working in the project area?				
f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X
h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				X

Existing Environmental Setting: Portions of the City are located along the I-5 corridor, and an east-west route to I-5 from State Route 99 bisects Corning. There is a possibility that vehicles transporting hazardous materials could experience an accident along these major transportation routes. The Corning Municipal Airport is located on Marguerite Avenue just north of Blackburn Avenue, and is comprised of 179 acres. In 2003, the Tehama County Airport Land Use Commission adopted a *Comprehensive Airport Land Use Plan*, identifying a Clear Zone and an Approach Zone, and development land use criteria for each of these zones.

In terms of wildland fire hazards, the City is primarily surrounded by agricultural uses, with some stands of oak woodlands. The fuel necessary to feed a large wildland fire is not existent within or adjacent to Corning. A wildland fire has not affected Corning within recent memory, and Corning has established a weed abatement ordinance to reduce the accumulation of weeds and other flammable materials within the City.

According to Section 25117 of the *California Health and Safety Code*, a hazardous material is any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health or the environment if released into the workplace or the environment. Hazardous substances can take the form of a solid, dust, liquid, or fume and exhibit any of the criteria set forth in 22 CCR, Chapter 30, Article 11. A list of wastes that are presumed hazardous is presented in Chapter 30, Article 9 of Title 22. Hazardous waste criteria include toxicity, ignitability, reactivity, and corrosivity.

Discussion of Checklist Answers:

- a. *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*
- b. *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Additional housing is planned through the *Housing Element Update*, and the specific location of this development is identified in **Figures 5A, 5B** and **7**. Future development is proposed adjacent to SR99W (Parcels C10, C15 - C19) and adjacent to I-5 in the area for rezoning (A1-A5, A7, A9, and A10). Future homes will be placed in proximity to potential hazards from the potential transport and release of hazardous materials which

could be a **potentially significant impact**. However, due to the permitting, operational, and reporting requirements imposed by the state and federal governments, it is highly unlikely that the release of hazardous materials into the environment at a level that would present a hazard to the environment or to human or animal life would occur; additionally, proposed future residential development is not expected to create the risk of upset. Implementation of the proposed development called for in the *Housing Element Update* will, therefore, have a **less than significant** impact.

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

Residential units constructed through the implementation of the *Housing Element Update* will be located within one-quarter mile of an existing or planned school. However, residential projects do not normally involve the use of hazardous materials. Hazards related to fuels used in construction will be mitigated on a case-by-case basis, and adherence to applicable City, State, and federal regulations related to the transport, use, storage, and/or disposal of hazardous materials will reduce potential impacts to a **less than significant** level.

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. . DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. The website maintained by the California State Department of Toxic Substances Control Hazardous Waste and Substances Sites List (Cortese List) indicates that there are no listed sites in the City.⁹

The *General Plan Land Use Element* developed goals, policies, and implementation measures to promote the health, safety, and welfare of the public. In addition, adherence to applicable City, State, and federal regulations would reduce potential hazards from building on or near a listed site to **less than significant** levels.

- d. *Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.*

The proposed Project is not located on a hazardous materials site. Therefore, there is **no impact** and no mitigation is required.

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?*
- f. *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?*

The recently adopted *Comprehensive Airport Land Use Plan* (2003) restricts the type and amount of development that can occur within the identified Clear Zone Safety Area

⁹ http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm

(no residential structures allowed) and the Approach Zone Safety Area (no residential structures within 2,000 feet of the Clear Zone and a density of 3.5 dwelling units per acre beyond that. Although it is possible that the *Housing Element Update* would result in the development of residential structures, the restrictions within the Safety Areas, and adherence to applicable City, State, and Federal regulations will reduce safety issues associated with the Corning Municipal Airport to **less than significant** levels.

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

The City does not currently have an adopted an Emergency Disaster Plan. The Corning Fire Department is in the process of preparing such a plan, but it had not been completed or adopted at the time of this analysis. Because the *Housing Element Update* does not specifically identify locations of planned residential development, the impact of new development on emergency response routes and emergency evacuation routes cannot be determined. Development of new residential uses would be subject to the requirements of the Emergency Disaster Plan, reducing potential safety impacts to a **less than significant** level.

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

Although the Mediterranean climate of the Central Valley helps fires to start and spread, during the annual dry season, the cropland, orchards, and irrigation surrounding the City help reduce the danger of wildland fires. In addition, the generally level topography of the City decreases the hazard of wildland fires. New residential development would be evaluated to determine the exposure of people and structures to a significant risk of loss due to wildland fire. New development would adhere to applicable and appropriate standards and regulations of responsible fire authorities, reducing potential wildland fire impacts to a **less than significant** level.

Conclusion: There are no potential adverse impacts related to hazards and hazardous materials. Adherence to regulatory codes and standards will reduce the potential impact to a **less than significant** level and **no mitigation** is required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HYDROLOGY AND WATER QUALITY <i>Would the project:</i>				
a. Violate any water quality standards or waste discharge standards?			X	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to			X	

contiguous with the Red Bluff Subbasin at depth. Annual precipitation ranges from 19- to 25-inches, increasing to the north.

The storage capacity of the subbasin was estimated based on estimates of specific yield for the Sacramento Valley as developed in DWR (1978). Estimates of specific yield, determined on a regional basis, were used to obtain a weighted specific yield conforming to the subbasin boundary. The estimated specific yield for the subbasin is 6.7 percent. The estimated storage capacity to a depth of 200 feet is approximately 2,752,950 acre-feet.

Estimates of groundwater extraction for the Corning Subbasin are based on surveys conducted during the years of 1993, 1994, and 1997. Surveys included land use and sources of water. Groundwater extraction for agricultural use is estimated to be 152,000 acre-feet. Groundwater extraction for municipal and industrial uses is estimated to be 6,600 acre-feet. Deep percolation of applied water is estimated to be 54,000 acre-feet.”

According to the *City of Corning General Plan*, the City owns and operates its water supply and distribution system, which relies solely on groundwater. According to the 2003 Water Quality Consumer Confidence Report prepared by the City’s Public Works Department, ten City wells pump groundwater from the deep-water aquifer located beneath the City. Three of the sites were off-line at the time of the report due to potential chemical contamination. While the contamination remains well below federal and State EPA limits, the City keeps the wells off-line to ensure the quality of the City’s water supply.

In terms of flood hazards, the City is subject to flooding from three basic sources: natural seasonal flooding, dam inundation, and mud and debris flows. Natural flooding is a result of seasonal storms that create runoff that can cause streams to overflow their natural banks or man-made levees. Dam inundation could occur from a structural failure of the Shasta Dam, releasing significant floodwaters to the Sacramento River, which is located five miles east of the City. According to the City’s General Plan, the California Office of Emergency Services states that the City would not be in an area of dam inundation resulting from the failure of the Shasta Dam.

Natural seasonal flooding is most likely to occur in the southern portion of the City, which lies within the flat flood plains of Jewett and Burch Creeks. These two drains comprise the largest drainage system in Corning by removing and transporting surface water runoff from areas northwest of the City to the Sacramento River.

The storm drainage system is a significant infrastructure constraint. The City uses a combination of underground pipes and surface channels to drain storm water from improved areas of the City. The main surface channel is the Blackburn–Moon Drainage Ditch, which is a highly modified natural channel. It is used to collect storm water drainage and direct it out to the WWTP for eventual discharge to the Sacramento River. Jewett Creek is a perennial stream that originates west of the City and flows through the southern portion of the City. It receives some surface drainage from less intensely developed portions of the City. In the late 1980s, it was planned as a major collector of storm water drainage from the City’s southern portions.

The drainage inside the City is problematic because of the relatively flat topography of the area. An expansion of the storm water system will actually improve the current drainage situation because it will allow surface runoff to flow away from the City. Onsite detention facilities are standard for commercial developments. The current standard for detention is to meet the needs of a 25-year storm for a period of four hours. These standards are currently being met; however, the two regions of concern for the City are between the City and the Sacramento River, and just west of Corning in the Red Hills area. The City needs to revisit the concept of a

Master Drainage Plan to reduce loads on the City's WWTP and to more efficiently handle drainage. The City is currently studying the issue of storm water system improvements between Gallagher and North Street, across to SR 99W.

Significant problems will be generated as more development occurs in the northeastern portion of the City. In this location, there is more variation in topography, and access to the Blackburn-Moon Ditch will require lift stations for storm water flows. The City needs to develop a policy of onsite detention and retention, especially on projects with ten or more homes.

Discussion of Checklist Answers:

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

Under section 402 of the Clean Water Act, the Regional Water Quality Control Board (RWQCB) issues National Pollutant Discharge Elimination System (NPDES) permits to regulate waste discharges to Waters of the US. Waters of the US include rivers, lakes, tributary streams, and wetlands. Waste discharges include discharges of stormwater and construction project discharges. A construction project resulting in the disturbance of one or more acres requires a NPDES permits. Construction project proponents are required to prepare a Storm Water Pollution Prevention Plan for projects 1 acre or more in size.

All major future housing developments both within the City and the area proposed for rezoning will be subject to the environmental review process at the tentative tract or parcel map stage, and impacts to water quality would be considered on a case-by-case basis, as well as a cumulative basis. In addition, future development would be subject to an NPDES permit and be required to prepare an SWPPP, which includes Best Management Practices (BMPs). Adherence to the requirements of the NPDES permit and the approval of an SWPPP would ensure that any potential impacts associated with this water quality would be reduced to a ***less than significant*** level.

Due to the permitting, operational, and reporting requirements imposed by the State and County, it is highly unlikely that the proposed Project will violate water quality standards. Implementation of the proposed Project will, therefore, have a ***less than significant*** impact and ***no mitigation*** is required.

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

"Review of hydrographs for long-term comparison of spring-spring groundwater levels indicates a decline of 5- to 12-feet associated with the 1976-77 and 1987-94 droughts, followed by a recovery to pre-drought conditions of the early 1970's and 1980's. Groundwater level data show seasonal fluctuations of approximately 3- to 15-feet for unconfined wells (5-feet near the Sacramento River), up to 30-feet for semi-confined wells away from the river, 5- to 20-feet for composite wells, and 10- to 30-feet for confined wells. Overall, there does not appear to be any increasing or decreasing trends in the groundwater levels."¹⁰

¹⁰ State of California Department of Water Resources. January 20, 2006. *Groundwater Bulletin 118, Hydrologic Region Sacramento River Sacramento Valley Groundwater Basin*

The City supplies domestic water to residents located within the City limits. All water for irrigation is supplied by outside sources such as the Corning Water District or individual wells. City water originates from ten well locations, which consist of deep well turbine pumps that pump ground water from the deep, unconfined aquifer located beneath the City.

The City's wells provide approximately 3.5 million gallons into the system each day which has a maximum pumping capacity of 5.5 million gallons per day, or 19.8 million gallons per year. Based on the availability of groundwater for the Municipal Water System, at the present time there is sufficient capacity to serve a growing population for the next ten years.

The proposed Project does not promote growth (i.e., population and housing units) in excess of population and housing needs accommodated in the City's General Plan which also addressed the potential development within the City's SOI at the time which identified 1,525 residential acres having the capacity to accommodate an additional 5,495 residential dwelling units. Potential impacts are considered **less than significant** and **no mitigation** is necessary.

- c. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*
- d. *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-or off-site?*
- e. *Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

There is the potential for future residential development to have an impact on drainage and runoff patterns, due to the introduction of impervious surfaces. However, future development projects would be subject to environmental review, including an analysis of potential impacts to drainage and runoff patterns. Adherence to all General Plan goals, objectives, and policies, as well as with other adopted City standards, would reduce these potential impacts to a **less than significant** level.

- f. *Otherwise substantially degrade water quality?*

Erosion during construction has the potential to substantially degrade water quality. However, the BMPs and specific features incorporated into the Project to eliminate, avoid, and/or to reduce potential biological resource and erosion impacts are also applicable as discussed under *IV. Biological Resources* and *VI. Geology and Soils*.

Due to the permitting, operational, and reporting requirements imposed by the state and City, it is highly unlikely that the proposed Project will result in a degradation of water quality, therefore, potential impacts are **less than significant** and **no mitigation** is required.

- g. *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

- h. *Place within a 100-year flood hazard area structures which would impede or redirect flood flows?*
- i. *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

The *City of Corning General Plan* states that the south and southwest portions of the City are affected by flooding from Jewett and Burch Creeks east of I-5. The area most affected by the 100 year floodplain is the area south of Elizabeth Avenue, west of Houghton Avenue, and east of I-5 and south of the City limits.

Review of the Flood Insurance Rate Map (FIRM) for the City of Corning, Community Panel Number 060398 0005 C dated September 27, 1991 and the FIRM within which the proposed 260-acre rezoning area lies the adjacent Tehama County, Community Panel Number 065064 0665 B were also reviewed to determine potential flooding impacts. Vacant parcels affected lie within Special Flood Hazard Area Zone A0 inundated by a 100-year flood where flood depths range from one to three feet. Waters usually sheet flow on sloping terrain.

Within the City existing vacant parcels and those proposed for general plan amendment and rezone to Multi-Family Residential and R-3 that are subject to flooding under a 100-year storm event were identified.

Based on the Tehama County FIRM, the 260-acre area proposed for rezoning and future annexation(s) is not located within, or in close proximity to a 100-year flood zone. Existing vacant parcels within the City identified in **Table 3** that could be potentially impacted by flooding include Parcels 20 and 27 which are 4.96 and 7.15 acres in size, respectively. Parcels C17 and C19 which are 0.30 and 10.87 acres in size, respectively are identified in **Table 5** as parcels for which a general plan amendment and rezone to Multi-Family Residential and R-3, respectively is recommended. Development of these parcels could be potentially impacted by flooding since they lie within the 100-year zone. Housing constructed within these areas can be **significantly impacted** by flooding.

The General Plan also encourages limiting land uses in these areas and encouraging the preservation of open space or buffering of the floodplain zone in order to decrease flood effects in the City. In addition, Chapter 17.45 in the Zoning Ordinance provides requirements that must be adhered to before development could occur within the 100-year flood plain.¹¹

Adherence of future residential development projects with all General Plan goals, objectives, and policies and adherence to zoning ordinance requirements serves to reduce potential flooding impacts to a **less than significant** level.

- j. *Inundation by seiche, tsunami, or mudflow?*

Tsunamis are defined as sea waves created by undersea fault movement. A seiche is an oscillation of the surface of a lake or landlocked sea. Mudflows typically occur in mountainous or hilly terrain.

The City is in little danger from tsunami, being some distance from the Pacific Ocean. Shasta Lake and Black Butte Lake are also too far away to impact the City by seiche

¹¹ Chapter 17.45 – FP Floodplain Combining District, specifically Sections 17.45.030 through 17.45.180 provide guidance.

(*City of Corning General Plan*). The lack of steep slopes in the City makes the possibility of mudflow unlikely. Impacts due to these hazardous conditions are **less than significant**.

Conclusion: There could be **potential impacts** associated with water quality. However, adherence to permitting, operational, monitoring and reporting standards and regulations imposed by the California Department of Public Health, Division of Drinking Water and Environmental Management and their oversight provides additional safeguards. Implementation of the proposed Project will, therefore, have a **less than significant** impact and **no mitigation** is required.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. LAND USE AND PLANNING <i>Would the project:</i>				
a. Physically divide an established community?				X
b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c. Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

Existing Environmental Setting: The incorporated area of the City currently consists of approximately 2,005 acres, primarily located east of I-5. Land uses within this area cover a broad spectrum of use, including residential, commercial, industrial, aviation, agriculture/rural residential, public service/utility, floodplain, and vacant property. In 1994 when the current *General Plan Land Use Element* was prepared, the City totaled approximately 1,743 acres. At that time residential classified lands totaled approximately 495 acres. Currently, the City has approximately 790 acres of Residential General Plan classified land of which approximately 720 acres is classified as Single Family (91.1 percent) and 70 acres (8.9 percent) is Multi-Family.

The City has planned for the future growth through the adoption of a Municipal Service Review (MSR) in 2005. The MSR allowed the Tehama County LAFCO to expand the City's SOI by an additional 4.65 square miles, or 2,950 acres. The current SOI encompasses 7.22 square miles, or 4,620 acres contiguous to the City limits on nearly all sides of the City.

Discussion of Checklist Answers:

a. Physically divide an established community?

The *Housing Element Update*, due to its nature, will not divide an established community. Therefore, **no impacts** will result.

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

Housing supply is greatly affected by the amount of available general plan classified and zoned vacant residential land and the density at which development is permitted. As noted in **Table 3** there are approximately 133 acres of vacant residentially zoned lands which is approximately 16.8 percent of total residential lands in the City. **Table 4** identifies another 129 acres of approved residential projects which when combined with the existing vacant parcels totals 262 acres. Construction of residential dwelling units on these parcels is consistent with the *General Plan* and accompanying zoning.

Recommended in **Table 5** are the general plan amendments and/or rezoning for approximately 187 acres within the City of which only 22 acres are currently non-residential designated lands are located within the *Highway 99W Corridor Specific Plan* area. The conversion of these currently classified commercial parcels to residential land uses, primarily multi-family, appears to represent approximately 8.6 percent of the total 256 acres of commercial properties within the *Specific Plan* area, which is **less than significant**.

Approximately 260-acres within the SOI adjacent to the northwestern City limits are proposed for annexation which will require rezoning, which is a component of the proposed Project. **Table 6** identifies the proposed *General Plan* residential designations and zoning classifications for 37 of the total 58 existing parcels within the 260 acre area. Since the area is still under Tehama County land use jurisdiction, the *Tehama County General Plan* classifies the lands as *Suburban Residential* and are zoned *R1-A-MH-B86* which allows one residential dwelling unit per two acres. The 260 acres proposed for annexation are consistent with the *General Plan Land Use Element* which specifically identified this acreage within the City's SOI before additional lands were included in the SOI as part of the MSR effort.¹² The rezoning of these lands is consistent with the *General Plan* and there is no impact on the *General Plan* and *Zoning Code*.

The *Housing Element Update* recommends several policies which will result in amendments to the *Land Use Element of the General Plan*, land use classifications, and *Zoning Code* district designations. The *Housing Element Update* calls for the following actions that could result in potential impacts on the man-made and natural environment.

Mixed Use General Plan Land Use Classification (HP-3): This new land use classification allows for a greater variety of uses and flexibility in site planning than is generally permitted in other classifications. The intent of the Mixed Use classification is to allow the creation of a mix of land uses in a compact pattern that will reduce dependency on the automobile and basin air quality impacts and promote high-quality, interactive neighborhoods. Mixed-use neighborhoods are characterized by interconnected streets, vertical and/or horizontal mix of commercial, residential, and possibly light industrial uses and facilities that encourage pedestrian activity and transit accessibility.

This policy calls for amendment of the general plan to establish a new "Mixed-Use" land use classification and the mapping of specific sites. Also the Zoning

¹² Page 1-4. May 1994. Sphere of Influence Map in the *Land Use Element of the City of Corning General Plan*

Ordinance shall be amended to provide for the “Mixed Use” classification and the rezone specific sites.

General Plan Consistency (HP-4): Amend Tehama County General Plan land use designations within the City’s Sphere of Influence for consistency with the City’s proposed land use designations.

Density Bonus Provisions (HP-7): Modify the density bonus component of the Zoning Ordinance so that it is in compliance with SB 1818. Cities must grant more "concessions or incentives" reducing development standards, depending on the percentage of affordable units provided. "Concessions and incentives" include reductions in zoning standards, other development standards, design requirements, mixed use zoning, and any other incentive that would reduce costs for the developer. Any project that meets the minimum criteria for a density bonus is entitled to one concession from the local government agency, increasing up to a maximum of three concessions depending upon the amount of affordable housing provided.

A city may not impose a "development standard" that makes it infeasible to construct the housing development with the proposed density bonus. In addition to requesting "incentives and concessions," applicants may request the waiver of an unlimited number of "development standards" by showing that the waivers are needed to make the project economically feasible. The bill defines "development standards" as "site or construction conditions."

Emergency Shelters and Transitional and Supportive Housing (HP-8): The Zoning Code needs to be amended to permit emergency shelters and transitional and supportive housing in the “Mixed Use” General Plan Designation and “Mixed Use” Zone District to be established.

Second Dwelling Unit on Single Family Lots (HP-9): Review of the current City Ordinance reveals that no specific “second unit” ordinance was developed and adopted. A section in the Zoning Code defines “Granny housing” but Chapter 17.10 which discusses the R-1 Single Family Residence District does not make any reference to, or incorporate, the “Granny housing” definition in the District. The City needs to clarify the second unit provisions of the Government Code in order to provide clear and concise direction to property owners wishing to construct a second unit. The Zoning Ordinance needs to be evaluated and amended to identify second unit requirements in relationship to parcel size, existing structures, etc. Efforts to encourage such units include, but are not limited to, removing disincentives such as high fees for the second unit. Consistent with State housing law, the City exempts second dwelling units from density calculations. These second units would be permitted in all residential neighborhoods and also permitted as part of new subdivisions, where feasible.

Duplex Development (HP-10): The Zoning Ordinance would be amended to permit duplexes throughout the single family land use designations that allow these uses. Density bonuses may be provided for affordable duplex units. Design guidance would be provided and as to when and how density bonuses may be provided.

Historic and Architectural Preservation Ordinance (HC-7): Develop a Historic and Architectural Preservation Ordinance that provides procedures and

standards for the designation of historically and architecturally significant buildings, structures, and properties.

Mobile Home Park Preservation (HC-9): Develop a Mobile Home Park Preservation and Improvement Ordinance or Policy to be adopted by the City Council. Procedures and standards would be established for the preservation and improvement of existing mobile home parks where such procedures are not in conflict with State HCD oversight under the Mobilehome Parks Act.

Disabled Parking Requirements (EH-4): The current Zoning Code does not clearly address disabled parking requirements for the various zone districts and needs to be amended to formalize parking policies and standards.

Large Family Housing (EH-8): Amend the City's Zoning Ordinance to require that a stipulated percentage of the units in proposed multi-family developments containing 20 or more units, excluding elderly households, be three or four bedroom units, in order to provide for the housing needs of large families.

Conservation of Lower Income mobilehome park Housing (PH-3): Amending the City's Municipal Code to establish procedures to prevent the displacement of Lower income residents from mobilehome parks that may convert to other uses is to be considered.

Condominium Conversion Ordinance (PH-5): Develop and adopt a Condominium Conversion Ordinance to regulate the conversions of rental developments to condominium ownership to conserve the supply of affordable rental housing.

Redevelopment Agency and Area (PH-7): Determine the feasibility of establishing a redevelopment area and if considered feasible, establish a redevelopment agency. Conduct a study to determine the feasibility of establishing a redevelopment area and if considered feasible, establish a redevelopment agency with jurisdiction over the defined redevelopment area. Once the redevelopment project area has been established, use redevelopment funds (including set-aside funds) to assist with the development of affordable housing, or to provide housing assistance to Lower-income households within the redevelopment area. The redevelopment area will include commercial properties which would also benefit from redevelopment activities.

Energy Savings Density Bonus (EC-1): Formalize the land development review process to incorporate energy conservation techniques into the design of proposed subdivisions and residences such as proper orientation to benefit from active and/or passive solar heating and cooling.

Evaluate the provision of up to a 25 percent density bonus to residential development projects if the following two conditions are met:

1. The project would result in an energy savings beyond those obtained with conventional design and construction techniques.
2. The amount of increased density is proportional to the amount of increased energy efficiency achieved that exceeds adopted regulations.

Existing Environmental Setting: When the aforementioned actions are considered for implementation, the necessary environmental review will be undertaken and a determination made. It is highly likely that the majority of the actions are statutorily or categorically exempt where the action could result in a potential significant environmental effect; a negative declaration would be prepared. Examples of statutory or categorical exemptions would include; a feasibility and/or planning study, an ordinance relating to the construction of second units and their construction on individual lots; an affordable housing or infill residential development project; existing zoning ordinance modifications, and, minor land divisions. Actions requiring a negative declaration would include general plan amendments and rezonings.

The *Housing Element Update*, as part of the *City of Corning General Plan*, has been analyzed for consistency with all General Plan goals, policies, and implementation measures and, as such, would not conflict with existing applicable land use plans, policies, or regulations. General Plan amendment and rezoning actions proposed will result in improvements to the existing documents serve to improve the overall community. There is **no impact**.

Adherence of future residential development projects with all existing and proposed general plan goals, policies, and implementation measures, and adherence to existing and proposed zoning standards, will reduce any potential land use and planning impacts to a **less than significant** level.

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

Currently, there are no adopted Habitat Conservation Plans, Natural Community Conservation Plans, or State habitation conservation plans that apply to the City, resulting in **no impact** as a result of the *Housing Element Update*.

Conclusion: The proposed Project will not cause any potentially significant impacts on land use and planning. There is **no impact**.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. MINERAL RESOURCES. <i>Would the project:</i>				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

According to the *City of Corning General Plan*, mineral extraction and construction accounted for four percent of the employment in Tehama County in 1983. Fourteen mineral resources have been identified in the County, including aragonite, borax, chalcopyrite, chromite, copper,

crystalite, galena, garnet, opal, pectolite, penninite, sassolite, and Wallsonite. The most plausible mineral for future development is chromite, used for steel production. In Tehama County, most of the chromite deposits are found in the western section of the County, and would therefore have little or no effect on the City.

Discussion of Checklist Answers:

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

Currently, there are no extraction activities taking place within the City. There is a slight potential for extraction of sand and gravel along Burch and Jewett Creeks. Development along these streams is restricted due to riparian, flooding and slope issues. Review of California Geological Survey Surface Mining and Reclamation Act of 1975 (SMARA) mineral classification maps does not identify mineral resource deposits that could be impacted. There are **no impacts** to mineral resources within those areas proposed for residential development within the City or the 260-acre rezoning area.

Conclusion: The proposed Project will result in **no impacts** on mineral resources.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE				
<i>Would the project result in:</i>				
a. Exposure of people to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X		
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	
f. For a project within the vicinity of a				X

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. NOISE <i>Would the project result in:</i>				
private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				

Existing Environmental Setting: The perceived loudness of sounds is dependent upon many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable, and can be approximated by weighing the frequency response of a sound level meter by means of the standardized A-weighting network. There is a strong correlation between A-weighted sound levels (expressed as dBA) and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A-weighted levels.

Community noise is commonly described in terms of the “ambient” noise level, which is defined as the all-encompassing noise level associated with a given noise environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (L_{eq}). The L_{eq} is the foundation of the day/night average noise descriptor, L_{dn} , and shows very good correlation with community response to noise.

The Day-night Average Level (L_{dn}) is based upon the average noise level over a 24-hour day, with a +10 decibel weighing applied to noise occurring during nighttime (10:00 p.m. to 7:00 a.m.) hours. The nighttime penalty is based upon the assumption that people react to nighttime noise exposures as though they were twice as loud as daytime exposures. Because L_{dn} represents a 24-hour average, it tends to disguise short-term variations in the noise environment.¹³

Noise is often described as unwanted sound. Sound is defined as any pressure variation in air that the human ear can detect. If the pressure variations occur frequently enough (at least 20 times per second) they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound, and is expressed as cycles per second, called Hertz (Hz).

Measuring sound directly in terms of pressure would require a very large and awkward range of numbers. To avoid this, the decibel scale was devised. The decibel scale uses the hearing threshold (20 micropascals of pressure), as a point of reference, defined as 0 dBA. Other sound pressures are then compared to the reference pressure, and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dBA. Another useful aspect of the decibel scale is that changes in decibel levels correspond closely to human perception of relative loudness. **Table N-1** illustrates common noise levels associated with various sources.

In 1987, the California Department of Health Services published guidelines for the noise element of local general plans. These guidelines include a noise level/land use compatibility chart that categorizes various outdoor L_{dn} ranges into four compatibility categories (normally

¹³ L_{dn} is the measurement of noise level based on the decibel measurement that considers the additional sensitivity of communities to noise generated during the evening and nighttime relative to the daytime.

acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable), acceptable range is 55-70 dB. The California Department of Housing and Community Development adopted noise insulation performance standards which require that “interior CNEL with windows closed, attributable to exterior sources, shall not exceed an annual CNEL of 45 dB in any habitable room” depending on land use.

The major source of noise impacts on the surrounding area will result from short-term construction. There are various residences located within a reasonable proximity (1,000 feet) of future development. **Table N-2** identifies noise levels associated with construction equipment.

The existing noise environment in the City is typical of developing rural areas along major highways, with the primary noise sources originating from the I-5 corridor, the CNFR Railroad tracks, and the Hwy 99W/Solano Street/Hoag Road/Hall Road/South Avenue, which is a transportation route from State Route 99 to I-5. A large truck stop is located at the South Avenue/I-5 interchange, and is open 24 hours a day. The Corning Municipal Airport lies to the north of the City. A major source of noise in the City is the Bell Carter olive plant on Second Street, from forklifts, the speaker phone system, processing machinery, and on-site cars and trucks.

TABLE N-1 Sound Pressure Levels of Common Sounds and Noises		
Sound Quality	Decibels	Sound Source
Threshold of Feelings		
Pain	120	Rocket engine, Ram Jet Turbojet: 7,000 pounds thrust
Deafening	110	Propeller aircraft, Boiler factory, Nearby riveter, Drop Hammer, Thunder
	100	Subway
Very Loud	90	Loud Street Noises, drill
Loud	80	Police Whistle, Portable sander
Noisy	70	Normal Radio, Noisy Office, Average Traffic
	60	Noisy home
Moderate	50	Average office, Ordinary Conversation, Quiet radio
Quiet	40	Quiet home, private office
Faint	30	Average auditorium
	20	Quiet conversation
Very Faint	10	Rustle of leaves, Whisper
Threshold of Audibility	0	Soundproof room

TABLE N-2 Preliminary List of Construction Equipment	
Type of Equipment	Maximum Level, dB at 50 feet
Bulldozers	87
Heavy Trucks	88
Backhoe	85
Pneumatic Tools	85

Source: *Environmental Noise Pollution*, Patrick R. Cunniff, 1977.

The *City of Corning General Plan Noise Element* identifies the normally acceptable range for low-density residential uses as less than 60 dB, while the conditionally acceptable range is 55-70 dB. The normal acceptable range for medium and high-density residential uses is identified as Ldn values below 65 dB, while the conditionally acceptable range is identified as 60-70 dB.

According to the *City of Corning General Plan Noise Element*, the only developed area in the City that is affected by I-5 freeway traffic and is within the 60 dBA contour is the Spring Mountain apartment complex located at the corner of Blackburn and Edith Avenues.

Discussion of Checklist Answers:

- a. *Exposure of people to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

Typically, residential housing does not generate unacceptable noise levels that would exceed City standards. Review of the vacant parcels within the current City boundaries identified in **Tables 3** through **6** and the accompanying **Figures 3, 4, and 5** illustrate that future housing will not be placed near land uses that would generate noise levels exceeding acceptable standards. However, there are vacant parcels identified in the **Tables** and accompanying **Figures** that could be potentially impacted by noise sources which include I-5, CNFR Railroad, the Corning Municipal Airport and Solano Avenue.

There are no vacant lots identified in **Figure 3** proposed for development in the future that lie within the 60 dBA contour for I-5. Therefore, there is **no impact**.

Undeveloped areas within the 60 dBA railroad noise contour as shown in **Figure 3** are Parcels 26, C3, C4, C5, C6, C13, and C14. Eventual development on these parcels could be **impacted significantly** thereby requiring mitigation.

Along Solano Avenue Parcels 37, 41, 42 and 51 in **Figure 4** are potentially impacted by traffic noise. Future development on these parcels could be **impacted significantly** thereby requiring mitigation.

There are currently no vacant residential parcels identified in **Figures 3** or **4** within the 60 dBA airport noise contour. Therefore, there is **no impact**.

Within the 260-acres proposed for annexation, Parcels A1 through A4, A5, A7, A9 and A10 abut I-5 and will be impacted by freeway noise traffic and Parcels A23 and A24 will be impacted by **potentially significant levels**. However, adherence of future residential development projects to General Plan goals, policies, and implementation measures would reduce potential impacts related to noise to **less than significant** levels.

The following overview is provided for use during the processing of future tentative maps or use permits. This can be considered a reference for developing and understanding mitigation measures.

Any noise problem may be considered as being composed of three basic elements: the noise source, a transmission path, and a receiver. The appropriate acoustical treatment for a given project should consider the nature of the noise source and the sensitivity of the receiver. As previously noted, the problem should be defined in terms of appropriate criteria (L_{dn} , L_{eq} , or L_{max}), the location of the sensitive receiver (inside or outside), and when the problem occurs (daytime or nighttime). Noise control techniques should then be selected to provide an acceptable noise environment for the receiving property while remaining consistent with local aesthetic standards and practical structural and economic limits. Fundamental noise control options include the following:

Use of Setbacks: Noise exposure may be reduced by increasing the distance between the noise source and receiving use. Setback areas can take the form of open space, frontage roads, recreational areas, storage yards, etc. The available noise attenuation from this technique is limited by the characteristics of the noise source, but is generally about 4 to 6 dB per doubling of distance from the source.

Use of Barriers: Shielding by barriers can be obtained by placing walls, berms or other structures, such as buildings, between the noise source and the receiver. The effectiveness of a barrier depends upon blocking line-of-sight between the source and receiver, and is improved with increasing the distance the sound must travel to pass over the barrier as compared to a straight line from source to receiver. The difference between the distance over a barrier and a straight line between source and receiver is called the “path length difference,” and is the basis for calculating barrier noise reduction.

Barrier effectiveness depends upon the relative heights of the source, barrier and receiver. In general, barriers are most effective when placed close to either the receiver or the source. An intermediate barrier location yields a smaller path-length-difference for a given increase in barrier height than does a location closer to either source or receiver. For maximum effectiveness, barriers must be continuous and relatively airtight along their length and height. To ensure that sound transmission through the barrier is insignificant, barrier mass should be about 4 pounds per square foot, although a lesser mass may be acceptable if the barrier material provides sufficient transmission loss. Satisfaction of the above criteria requires substantial and well-fitted barrier materials, placed to intercept line of sight to all significant noise sources. Earth, in the form of berms or the face of a depressed area, is also an effective barrier material.

There are practical limits to the noise reduction provided by barriers. For vehicle traffic or railroad noise, a 5 to 10 dB noise reduction may often be reasonably attained. A 15 dB noise reduction is sometimes possible, but a 20 dB noise reduction is extremely difficult to achieve. Barriers usually are provided in the form of walls, berms, or berm/wall combinations. The use of an earth berm in lieu of a solid wall may provide up to 3 dB additional attenuation over that attained by a solid wall alone, due to the absorption provided by the earth. Berm/wall combinations offer slightly better acoustical performance than solid walls, and are often preferred for aesthetic reasons.

Site Design: Buildings can be placed on a project site to shield other structures or areas, to remove them from noise-impacted areas, and to prevent an increase in noise level caused by reflections. The use of one building to shield another can significantly reduce overall project noise control costs, particularly if the shielding structure is insensitive to noise.

Site design should guard against the creation of reflecting surfaces which may increase onsite noise levels. For example, two buildings placed at an angle facing a noise source may cause noise levels within that angle to increase by up to 3 dB. The open end of “U-shaped” buildings should point away from noise sources for the same reason. Landscaping walls or noise barriers located within a development may inadvertently reflect noise back to a noise-sensitive area unless carefully located. Avoidance of these problems while attaining an aesthetic site design requires close coordination between local agencies, the project engineer and architect, and the noise consultant.

Noise Reduction by Building Facades: When interior noise levels are of concern in a noisy environment, noise reduction may be obtained through acoustical design of building facades. Standard construction practices provide 10-15 dB noise reduction for building facades with open windows, and approximately 25 dB noise reductions when windows are closed. Thus a 25 dB exterior-to-interior noise reduction can be obtained by the requirement that building design include adequate ventilation systems, allowing windows on a noise-impacted facade to remain closed under any weather condition.

Where greater noise reduction is required, acoustical treatment of the building facade is necessary. Reduction of relative window area is the most effective control technique, followed by providing acoustical glazing (thicker glass or increased air space between panes) in low air infiltration rate frames, use of fixed (non-movable) acoustical glazing or the elimination of windows. Noise transmitted through walls can be reduced by increasing wall mass (using stucco or brick in lieu of wood siding), isolating wall members by the use of double or staggered stud walls, or mounting interior walls on resilient channels. Noise control for exterior doorways is provided by reducing door area, using solid-core doors, and by acoustically sealing door perimeters with suitable gaskets. Roof treatments may include the use of plywood sheathing under roofing materials.

An additional measure to prevent sound from entering through attic vents would be to acoustically baffle all attic vents. The baffles should introduce at least one 90 degree obstruction to the flow of air through the vent. The baffle should be lined with an acoustically absorbent material such as, one-inch thick, 3 PCF fiberglass duct liner.

Use of Vegetation: Trees and other vegetation are often thought to provide significant noise attenuation. However, approximately 100-feet of dense foliage (i.e., a mass of vegetation such that no visual path extends through the foliage) is required to achieve a 5 dB attenuation of traffic noise. Thus the use of vegetation as a noise barrier should not be considered a practical method of noise control unless large tracts of dense foliage are part of the existing landscape.

Vegetation can be used to acoustically “soften” intervening ground between a noise source and receiver, increasing ground absorption of sound and thus increasing the attenuation of sound with distance. Planting of trees and shrubs is also of aesthetic and psychological value, and may reduce adverse public reaction to a noise source by removing the source from view, even though noise levels will be largely unaffected. It should be noted, however, that trees planted on the top of a noise control berm can actually slightly degrade the acoustical performance of the barrier. This effect can occur when high frequency sounds are diffracted (bent) by foliage and directed downward over a barrier.

In summary, the effects of vegetation upon noise transmission are minor, and are primarily limited to increased absorption of high frequency sounds and to reducing adverse public reaction to the noise by providing aesthetic benefits.

The above, in addition to the following more specific mitigations will serve to reduce impacts to ***less than significant levels***.

Mitigation Measure N-1

- *Sound walls or earthen berms shall be utilized along the roadways, adjacent to future residential uses. Residences adjacent to Solano Avenue and 99W normally will require barriers approximately six-feet in height.*
- *Residences adjacent to I-5 could be exposed to traffic noise levels in excess of 75 dB Ldn based on evaluations undertaken for other projects in Tehama County. Future development of the parcels proposed for rezoning adjacent to I-5 will be required to comply with the exterior noise level standards which range between 60 dB and 65 dB Ldn. The*

standard is applied at the outdoor activity area. For single family residential uses, the standard would be applied at a patio or rear yard. For multi-family uses, the standard can be applied at individual patios or a common outdoor area such as a court yard or club house. Compliance with the outdoor noise level standards can be accomplished through the use of barriers, shielding by buildings, the use of setbacks, site design, or a combination of each. Preliminary barrier calculations based on other developments within Tehama County indicate that barrier heights could range between 10 feet in height to achieve the upper end 65 dB Ldn exterior noise level standard, and 14 feet in height to achieve the more restrictive exterior noise level standard of 60 dB Ldn. The combination of mitigation measures required to comply with the City exterior noise level standard will be determined when ensuing tentative subdivision maps or use permits illustrating lot locations and configurations and grading are submitted for approvals.

- If a barrier is used as a form of mitigation, the final barrier design shall be completed that recommends the size, location and type of barriers needed, if any, to ensure consistency with the Noise Element and shall be included as a condition for approval of tentative maps or use permits.
- Future residential development will be required to comply with an exterior noise level standard of 65 dB Ldn. Compliance with the outdoor noise level standards can be accomplished through the use of barriers, shielding by buildings, the use of setbacks, site design, or a combination of each. The combination of mitigation measures required to comply with the City's exterior noise level standard will be determined when tentative subdivision maps or use permits illustrating lot and/or building locations and configurations, final design and grading are submitted for entitlements. If a barrier is used as a form of mitigation, the final barrier design shall be completed that recommends the size, location and type of barriers needed, if any, to ensure consistency with the Tehama City Noise Element and shall be included as a condition for approval of the tentative maps or use permits.
- All residential uses are required to comply with the 45 dB Ldn interior noise level standard. A detailed analysis of interior noise levels shall be conducted when tentative subdivision maps are available for each residential area located adjacent to Solano Avenue, 99W, I-5 and the CFNR Railroad line and required as a condition of tentative map or use permit approvals. Improvements to building facades could include Sound Transmission Class rated windows and improved façade construction.

b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The only source of groundborne vibration is from I-5 and the CNFR Railroad. The proposed Project will not create vibration or groundborne noise level, however, future residential housing may be impacted by these existing sources based on their proximity to the sources. There is **less than substantial impact**.

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

Noise exposure at the available housing sites in the City can be considered a potential constraint to the development of residential housing. There is an active, municipal airport in the north central portion of the City; however the traffic patterns of the airport are designed to avoid flying over the city limits. Also extending within the western edge of the City is I-5 which is a major source of ambient noise. Trains are another major source of ambient noise that may act as a constraint to housing development since California Northern Railroad (CNFR) has a rail line running in a north-south direction through the central part of the City. CNFR interchanges with the Union Pacific Railroad and provides daily and scheduled service for major commodities which are food related being tomato products, olives, rice, cheese, frozen foods, beer, wine and wheat with some stone, petroleum products, and chemicals. However, service is not as frequent as Union Pacific which also accommodates passenger service via AMTRAC. Adherence to Uniform Building Code requirements for acceptable interior noise thresholds and the utilization of noise attenuation mechanisms such as building siting and berm/solid wall construction will minimize noise impacts to acceptable levels.

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

The construction of new residential development and, in particular, associated infrastructure will require the use of earthmoving vehicles and construction equipment. The operation of this equipment will temporarily increase the potential for groundborne vibration and/or noise. Potential groundborne noise/vibration impacts resulting from construction of additional residential units envisioned by the *Housing Element Update* would be short-term and construction activities would be required to comply with applicable City standards. Adherence to these measures would reduce impacts associated with construction related noise and vibration to **less than significant** levels.

For comparative purposes, **Table N-1** is provided to illustrate relative loudness compared to common noise levels. Short-term impacts due to construction will occur with noise levels (at a distance of 50 feet from the noise source) ranging from 68 dBA for backhoes to 95 dBA for an excavator. The types of operational equipment used for this Project will typically generate noise levels of 70 to 90 dBA at a distance of 50 feet.

The potential exists for construction-related noise impacts on existing adjacent residences and future residents in the City and area proposed for rezoning and future annexation. Activities associated with construction will result in elevated noise levels, with maximum noise levels ranging from 85-88 dB at 100-feet. Construction activities would be temporary in nature and would likely occur during normal daytime working hours. Nonetheless, because construction activities would result in periods of elevated noise levels, this impact would be considered **potentially significant**. Implementation of the following mitigation measure will reduce this impact to a level of **less than significant**.

Mitigation Measure N-2

Construction activities shall be limited to the hours of 7 a.m. to 8 p.m. on the weekdays and from 9 a.m. to 5 p.m. on weekends and holidays unless an exemption is received from the City to cover special circumstances. In addition, all equipment shall be fitted with factory equipped mufflers, and in good working order.

The development of new residential uses typically increases the traffic volumes in the vicinity of new development. Because traffic noise is a primary contributor to the local noise environment, any increase in traffic resulting from residential development will be expected to proportionally increase local noise levels. Adherence to City and/or State noise standards would reduce potential impacts related to increased traffic to **less than significant** levels.

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*
- f. *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?*

The Corning Municipal Airport is located one mile northeast of the City. According to the *Housing Element Update*, the Comprehensive Airport Land Use Plan, adopted in 2003, identifies two airport safety zones. The Clear Zone Safety Area allows no residential development within its boundaries. Within the boundaries of the Approach Zone Safety Area, no residential development is permitted within 2,000 feet of the Clear Zone, and low density residential development is allowed at a density of 3.5 dwelling units per acre. However, the Approach Zone also suggests that residential uses should be prohibited or strongly limited in this Safety Area. Adherence to those standards would reduce potential impacts to **less than significant** levels.

Conclusion: There are no long-term noise impacts and short-term noise impacts due to construction are **less than significant**.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING <i>Would the project:</i>				
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure?			X	
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?			X	
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?			X	

Existing Environmental Setting: The State of California Department of Finance identifies the population of the City of Corning as of January 1, 2009 to be 7,396. The average overall growth rate is approximately 1.08 percent per year. The State Department of Finance has estimated the total number of housing units, as of January 1, 2009, to be 2,922, an increase of 308, or an

11.6 percent increase in housing units over the past 9 years. The housing increase has kept pace with the approximate 9.2 percent increase in population during the period of time.

The *Housing Element Update 2007-2014* RHNA identifies the need for 411 new housing units over the Plan period. In addition, it identifies the need for provision of housing for low and moderate income households and households with special needs.

As part of the *Housing Element Update*, a windshield survey of exterior housing conditions was undertaken in April 2009.¹⁴ Experience has determined that there is a very good correlation between the exterior of a residence reflecting interior conditions. Based on the survey, the City has approximately 94 percent of its housing stock in good and decent condition. Of the remaining 176 housing units, 131 (4.6 percent) were considered suitable for rehabilitation. The remaining 41 housing units, due primarily to the extreme condition of disrepair, were determined unsuitable for rehabilitation and need to be demolished. Typically, housing units over 20 years of age are the most likely to need both moderate and major rehabilitation work to elevate them to a "standard" condition. It is unlikely that units constructed in the past 20 years would require more than minimum level on-going maintenance.

Of the 131 housing units suitable for rehabilitation, 118 housing units are considered substandard if they meet the following definition: Those buildings which exhibit one or more critical structural, plumbing, and/or electrical deficiency or a combination of intermediate defects in sufficient number or extent to require considerable repair or rebuilding. Units are also considered substandard if they do not provide safe and adequate shelter or endanger the health, safety, or well-being of the occupants.

Substandard housing units are further classified into those that are suitable for rehabilitation and those which are not suitable for rehabilitation. The following definition of "suitable for rehabilitation" is used: Those buildings which exhibit one or more of the deficiencies listed under the above definition of substandard, all of which can be repaired in conformity with current codes and ordinances for a sum not to exceed the value of the building. There are 67 housing units suitable for rehabilitation. Residences are considered "not suitable for rehabilitation" when the cost of the needed repairs would exceed the value of the structure. As previously noted, there are 41 housing units that are not suitable for rehabilitation and need to be removed.

The survey determined that there are approximately 68 housing units that need minor repairs. These housing units, while not categorized as substandard thereby needing rehabilitation, need primarily weatherization improvements such as window replacement and more than likely, insulation.

The City is a land use authority and has the primary responsibility for implementing growth strategies. The City plans future facilities by undertaking long range facilities planning and accompanying financing justification studies. Essentially the City serves to meet the demands of existing development and accommodate future growth.

Discussion of Checklist Answers:

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

¹⁴ The majority of the survey was undertaken on May 12 and 14 by Terry Hoofard – Building Official, John Stoufer – Planning Director, and Eihnard Diaz – Diaz Associates Principal Planner.

The 2000 Census recorded 2,618 housing units in the City. The State Department of Finance has estimated the total number of housing units, as of January 1, 2009, to be 2,922, an increase of 308, or an 11.6 percent increase in housing units over the past 9 years. The City Building Department reports the issuance of 318 building permits during that period of time of which 80 were for the construction of multi-family residential units. The housing increase has kept pace with the approximate 9.2 percent increase in population during the period of time.

Housing supply is greatly affected by the amount of available vacant land designated for residential use and the density at which development is permitted. As noted in **Table 3** there are approximately 133 acres of vacant residentially zoned lands capable of supporting an additional 659 dwelling units with an accompanying increase in population of 1,819 persons. **Table 4** identifies another 129 acres of approved residential projects yielding 548 units resulting in an additional 1,512 persons. Recommended in **Table 5** are the general plan amendments and/or rezoning for approximately 187 acres within the City, which could generate 1,199 dwelling units generating an additional 3,309 persons. Cumulatively there exists the potential for an additional 2,406 residential dwelling units within the current City boundaries with an accompanying population yield of 6,640 persons. This is approximately 750 persons less than the current City population.

Approximately 260-acres within the SOI adjacent to the northwestern City limits are proposed for annexation which requires rezoning, which is a component of the proposed Project. **Table 6** identifies proposed General Plan Residential designations and Zoning classifications for 37 of the total 58 existing parcels within the 260-acres. Development of these parcels plus the existing 39 existing residences will add an additional 1,385 residential units to the City's inventory and increase the population by 3,823 persons. Of these residences, 1,346 will be newly constructed.

Cumulatively, the potential exists for the development of an additional 3,752 residential units which could result in a population increase of 10,355 persons which is a **potentially significant** increase. However, the construction of that number of residential units is projected to be developed over a 67 year time period, or by the Year 2073. The number of residential units that would be constructed would average approximately 56 units per year, which is **less than significant**.

In the short-term, the *Housing Element Update* will ensure adequate land, with appropriate zoning to allow for the additional 411 housing units identified as the City's regional fair share in the 2007-2014 RHNA. The Project will accommodate the future housing needs of projected population growth. All of the housing development anticipated by the *Housing Element Update* will be developed on land that is already served by the necessary infrastructure for residential development, or on land that can have the necessary infrastructure systems extended as identified in the MSR. For this reason, adoption and implementation of the *Housing Element Update* will not be expected to induce substantial growth that would require significant new infrastructure, displace substantial numbers of existing housing, or necessitate the construction of replacement housing. Therefore, approval and implementation of the *Housing Element Update* will have **less than significant** impacts on population and housing.

- b. *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?*

- c. *Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?*

Future development anticipated by the *Housing Element Update* will be constructed on vacant and underutilized land within the City, and existing housing will not be displaced. The *Housing Element Update* Housing Condition Survey did identify 41 housing units that were in need of replacement. However, housing anticipated in the *Housing Element Update* will be developed to meet the needs of the City, including those houses that need replacement. Therefore, the *Housing Element Update* would have **less than significant** impacts related to the displacement of existing housing.

Conclusion: There are **less than significant** population and housing **impacts** associated with the proposed Project.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. PUBLIC SERVICES				
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: Fire protection? Police protection? Schools? Parks? Other public facilities?			X X X X X	

Existing Environmental Setting:

Fire Protection – The City of Corning Fire Department provides fire protection services and emergency medical services within a five-square mile area of the City, including the business district, two shopping centers, and several large truck stops. The Department is centrally headquartered in the City at 814 Fifth Street, resulting in an average response time of three to five minutes. Backup services for areas proposed for annexation to the City are provided by the Tehama County Rural station, which has a three to five minute response time to the outlying areas.

Insurance Services Office (ISO) ratings are used by insurance companies to determine fire insurance rates. The rating takes into account the number of firefighting personnel and equipment available to an area and the average emergency response times. Ratings range from one through ten, with one indicating excellent fire service and ten indicating minimal or no protection. Based on its average response time for fire and medical emergencies, the Fire Department’s current ISO rating is four.

The Department maintains a fleet of equipment in fair to excellent condition. These include three pumpers (two with a capacity of 1,250 gallons per minute (gpm) and one with an output of 1,500 gpm); two brush trucks; and a rescue squad. The standard initial dispatch for a dwelling unit is two pumper trucks and the rescue unit.

Police Protection – The Corning Police Department (CPD) provides continuous law enforcement and emergency assistance services to areas located within the City limits. The department also maintains a fleet of 14 vehicles, including special duty vehicles (such as the Youth Programs van), two Citizens on Patrol volunteer vehicles, one Community Service Officer/Animal Control vehicle, one K-9 vehicle, and one unmarked Detective vehicle. The CPD focuses their efforts on several specific local problems, including narcotics and gang activity. For example, in 2004, approximately 2,564 hours of CPD labor were spent on narcotics, with an additional 200 hours per year for each officer assigned to the Tehama County task force for gang activity.

Schools – The Corning Union Elementary School District and the Corning Union High School District provide educational services to City residents. The following schools exist in the City:

- Olive View Elementary K-5
- Woodson Elementary K-5
- Rancho Tehama Elementary K-4
- West Street Elementary K-2
- Maywood Middle School 6-8
- Corning High School 9-12

Corning High School receives students from the surrounding areas including the City, Richfield, Kirkwood, Paskenta, Flournoy, and Capay.

With the assessment of school mitigation fees on all new developments, the Corning Elementary and High School districts are collecting funds that will maintain the level of service that is currently provided. Developers are required to participate in a fee program that collects funds based on the square footage for a project, at a rate of \$2.97 per square foot.

Parks – The City currently owns and maintains six parks and a small plaza totaling approximately 18 acres: Estil C. Clark Park, Woodson Park, Yost Park, Flournoy Memorial Park, Children’s Memorial Park, North Side Park, and Martini Plaza. Please refer to the discussion under XV. *Recreation*.

Discussion of Checklist Answers:

- a. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: fire protections, police protection, schools, parks, other public facilities?*

Fire Protection – The *Housing Element Update* proposes actions to facilitate the development of housing, thereby increasing the density in the City which may, in turn, require additional fire protection facilities and services. Without specific details regarding each development, impacts to fire protection services are not possible to determine with any precision. The City does not currently include fire protection fees in its residential development fee system. The *Housing Element Update* notes that the projected housing

development in the City is not of the magnitude that is expected to adversely affect delivery of fire protection services. It further states that new development will be closely monitored to identify any improvements that are needed to maintain adequate fire protection levels, resulting in a **less than significant** impact.

Police Protection – The *Housing Element Update* proposes actions to facilitate the development of housing, thereby increasing the density in the City which may, in turn, require additional police protection facilities and services. Without specific details regarding each development, impacts to police protection services are not possible to determine with any precision. The City does not currently include police protection fees in its residential development fee system. The *Housing Element Update* notes that the projected housing development in the City is not of the magnitude that is expected to adversely affect delivery of police protection services. It further states that new development will be closely monitored to identify any improvements that are needed to maintain adequate police protection levels, resulting in a **less than significant** impact.

Schools – With the assessment of school mitigation fees on all new development, Corning school districts are collecting funds that will enable them to maintain the current level of service, even with the addition of 411 new housing units. The fee program rates are \$2.97 per square footage for residential development. The assessment of the School Facilities Mitigation Fee ensures that the *Housing Element Update* will not result in a significant impact under CEQA, in accordance with Senate Bill 50, which became effective in 1998. Therefore, impacts to schools as a result of the *Housing Element Update* are considered **less than significant**.

Parks – Under provisions of the State Quimby Act, five acres of developed recreation land is required per every 1,000 residents. Developers may acquire this acreage or pay a fee in lieu of a set-aside when a project contributes to an area’s population. The State Quimby Act provisions reduce impacts to parks as a result of the *Housing Element Update* to a **less than significant** level.

Conclusion: There are **less than significant impacts** on public services resulting from implementation of the proposed Project.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. RECREATION				
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?			X	
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			X	

Existing Environmental Setting: Existing City parks offer many recreational opportunities to residents of and visitors to the City, described above. Community involvement, business donations, and agency cooperation have all been key elements in park improvements and maintenance. Community groups involved in recent improvements include the Volunteer Park Improvement Committee, the Rotary Club, the Exchange Club, the Lions Club, the Volunteer Fire Department, Corning Little League, and the Veterans of Foreign Wars. Businesses have donated materials for park improvements, and the California Division of Forestry inmates from Salt Creek Camp have provided labor for several improvements.

The City currently owns and maintains six parks and a small plaza totaling approximately 18 acres: Estil C. Clark Park, Woodson Park, Yost Park, Flounoy Memorial Park, Children's Memorial Park, North Side Park, and Martini Plaza.

Estil C. Clark Park is the largest city park. Facilities include a little league field, a tee ball field, concession building and announcer's booth, and bleachers. Woodson Park contains a playground with equipment and picnic areas set within shady olive trees. Yost Park includes a playground and a softball field with a concession room, announcer's booth, and roof canopy for the bleachers. Flounoy Memorial Park is a small neighborhood park containing picnic areas with tables and grills, a sprinkler system, and a playground area with wooden equipment. Children's Memorial Park contains a grassy area and playground. The metal playground equipment includes a swing set, moon climber, and a slide. North Side Park features a Junior Olympic size swimming pool with a smaller pool, a two-court lighted tennis court, playground area with equipment, barbecues, a fenced play area including equipment for small children, water fountains, a basketball court, and a sand-filled volleyball court. Martini Plaza is the newest addition to the City's parks system. This small downtown plaza contains restrooms, picnic tables, and a water fountain.

Currently, parks are distributed across the City in a Northwest to Southeast trending band. Park facilities are noticeably absent in several areas within the existing City limits. The southwestern portion of the City lacks park facilities, but this area is largely commercial. The west-central and south-central areas of the City are also without nearby parks. These deficiencies will become more pronounced with an expansion of the City limits.

Within the SOI, parks will be needed in the northeastern section of the City due to high concentrations of new and proposed residential developments. The addition of new park facilities could occur at a lower than anticipated cost to the City under certain situations. For example, the City could raise development impact fees or require dedication of lots as green space or small parks to serve new developments. In addition, the City could enter into agreements with new schools, built in response to increased growth, to have shared playground and recreation facilities. A number of cities in the Northern Sacramento Valley take advantage of such cooperatives to share the cost of maintaining park space.

Discussion of Checklist Answers:

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

The Project will create residential development increasing the population within the City

The City is served by five different classifications of roadways. These are freeway, state highway, arterial, collector, and local street.

- Freeway – A limited access and high speed road serving inter-regional movement with no interference from local street patterns or at-grade crossings. Freeways are divided highways and serve primarily regional and long distance travel.
- State Highway – Limited access and higher speed road for travel between communities. Medium capacity two-lane roadways with one lane in each direction. The passing of slower vehicles requires the use of the opposing lane where traffic gaps allow:
- Arterial – A street carrying the vehicular traffic of intra-community travel as well as access to the rest of the county transportation system. Access to arterials should be by minor arterial, collector and local streets.
- Minor Arterial – A street for movement of intra-community traffic and less traveled than arterial streets.
- Collector – These roadways serve traffic between major and local roadways and neighborhoods. Collector's are used mainly for traffic movements within residential, commercial, and industrial areas.
- Local Street – Roadways used primarily for direct access to residential, commercial, industrial, or other abutting property with on-street parking. They do not generally include roadways carrying through traffic.

According to the *General Plan Circulation Element*, the City's circulation system includes I-5 (Freeway), former State Highway 99W (Arterial), and locally important roadways within the City, including 3rd Street (Arterial), Colusa Street (Collector), Fig Lane (Collector), Hoag Road (Arterial), Houghton Avenue (Collector), Kirkwood and 2nd Street (Arterial and Minor Arterial), Marguerite Avenue (Collector), Solano Street (Arterial), South Avenue (Arterial), Toomes Avenue (Collector), and Woodson and 6th Street (Collector). These roadways provide the majority of access to work, shopping, and home trips in the City.

Highway 99W is used by local and regional traffic. Access to the communities of Richfield and Proberta is via 99W to the north of Corning. In addition, 99W allows access to County Roads AS 1 and AS in order to cross the Sacramento River at Tehama and Los Molinos.

The South Avenue corridor between I-5 and State Highway 99E is an important arterial and County Route A9. The California Department of Transportation (Caltrans) recognizes the need for a possible I-5 and 99E link, but no formal plans exist for using South Avenue or any other corridor for this purpose. This does not mean it will not happen; only that Caltrans might someday undertake a study for an I-5 to 99E link.

Intersections are areas within a circulation system where the flow of traffic is often interrupted. Interruptions can occur from any number of sources (stop signs, traffic lights, bicycle and pedestrian crossings, etc). Vehicle conflicts or accidents are more susceptible at intersections. Important Intersections in Corning include South Avenue & 99W, 99W & Solano Street/Edith, Solano Street & Toomes Avenue, Solano & 6th Street, Solano & 3rd Street, and Solano Street & Marguerite Avenue.

The General Plan projected that traffic will increase at all intersections and roadways within the City at maximum build-out. The only intersection or roadway that falls below the Level of Service (LOS) C is the South Avenue and 99W area. Part of the reason is the high volume of heavy truck traffic and projected future automobile and truck as development increases along the 99W corridor. The following describes the various Level of Service categories.

- Level of Service A – Free flow of individual users that are not interrupted by other users in the traffic pattern. Any intersection delays are less than 5 seconds.
- Level of Service B – Constant flow with a large freedom to maneuver, but with some interference from other users. Intersection delays are between 5 and 15 seconds.
- Level of Service C – Restricted flow which remains constant, but interference from other user is noticeable. Intersection delays range from 15 to 25 seconds.
- Level of Service D – High-density but stable flow. Freedom to maneuver is restricted and intersection delays range from 25 to 40 seconds.
- Level of Service E – Traffic flow is at or near capacity and freedom to maneuver is extremely difficult. Intersection delays of 40 to 60 seconds can be expected.
- Level of Service F – Traffic flow approaches a level that exceeds the amount that can be served. Traffic is stop-and-go and queues form. Delays at intersections are greater than 60 seconds.

The City has identified improvements intended to accommodate projected traffic volumes and help maintain the City's level of service (LOS) policy. Included in the recently completed street projects are miscellaneous asphalt repairs in the northwestern portion of the City, ongoing street patching caused by rain damage and street sweeping by Corning Disposal under a Franchise Agreement.

City and County pavement has suffered from years of funding shortfalls for maintenance and rehabilitation. At least 900 (38 percent) of the 2,400 lane miles of streets and roads maintained by Tehama County are deficient and need rehabilitation. In addition, some of the right of way widths are only 40 feet, which is less than the minimum 60-foot width city requirement. These substandard streets must be reconstructed and brought up to City standards when the properties adjacent to the roads are developed. The cost of this improvement will be borne by the developers of the adjacent land.

The necessary rehabilitation of roads that the City will be acquiring through annexations within the SOI will be funded, in part, by the new development. Developers are currently responsible for full improvements of the lane adjoining the project and one-half of the adjacent lane. There are currently no funds for the roads to be connected to the existing roadways between improved areas. Some of these improvements will be funded by traffic impact fees.

According to the *General Plan*, the Planning Commission identified some overall concerns and important issues for future development. These include:

1. the need to protect future east-west and north-south right-of-ways for an efficient circulation system;
2. residential driveway access to arterial roadways;
3. the lack of access to land east of CNFR Railroad and west of the airport;
4. the high accident rate at Toomes and Solano Street;
5. the traffic count program initiated by the City; and
6. the need for a contiguous bicycle path system.

As the City annexes more County areas, the amount of substandard roads will increase, more than doubling under the expanded SOI. As new properties develop, the developers are required to provide street improvements, including at least one half of a lane, curbs, gutter, and sidewalks. If development occurs in a patchwork fashion across the City's new SOI, this will

result in a mix of poor and substandard roads connected to improved roads in front of subdivisions.

Corning Municipal Airport is located within the City Limits. The runway is 2,700 feet long, 50 feet wide, and lighted. No commercial air service is available. The nearest commercial air service is in Redding and Chico.

Although the City does not currently offer municipal bus services, bus service is provided by the Tehama Rural Express (TRAX) which provides public transit service in Tehama County, including within downtown Corning, and to the outlying communities. The City's Transportation Facility is located on the southeastern corner of Solano and Third Streets. The Transportation Center is centrally located downtown to provide a convenient place for residents and visitors using the TRAX Bus System. The complex is composed of a park and ride lot and is currently being used as the Corning Recreation Department office.

An increase in population associated with an expanded SOI will simultaneously increase the number of citizens using the Transportation Center. Because many of the proposed developments will likely be filled by commuters in the outlying communities, these new residents may not use the Transportation Center.

Students attending Shasta College in Redding are provided shuttle service in the City, offering one trip daily with three pick up points. The Tehama Rural Express (TRAX) provides public transit service in Tehama County, including within downtown Corning, and to the outlying communities.

The City currently has only Class III Bicycle Routes. Class III routes are those that share usage of streets with pedestrians and vehicular traffic. The General Plan identifies that the use of bicycles within the City should be encouraged and expanded. An example to encourage bicycle use is for new developments that require collector or arterial streets should allow for bike route right-of-ways.

Pedestrian needs can usually be accommodated by the construction of sidewalk and pathways. In areas with little or no development, adequate shoulders (4 to 6 feet wide) are usually provided for pedestrians. The requirements for sidewalks are addressed in the City's Land Division Standards, Regulations; Requirements, and Map Processing Procedures.

It is desirable to combine pedestrian and bicycle facilities. This is important in planning new development areas. The use of pedestrian and bicycle facilities to link areas of home, work, school, and commercial uses can be used to reduce vehicle traffic and air pollution.

Discussion of Checklist Answers:

- a. *Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant Components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?*
- b. *Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?*

One of the results of the *Housing Element Update* is the development of housing resulting in future growth in the City and in areas proposed for annexation. This *Housing Element Update* may add to traffic congestion, and potentially exceeding established Levels of Service.

As previously noted in **Table 3** there are approximately 133 acres of vacant residentially zoned lands capable of supporting an additional 659 dwelling units. **Table 4** identifies another 129 acres of approved residential projects yielding 548 units. Recommended in **Table 5** are the general plan amendments and/or rezoning for approximately 187 acres within the City, which could generate 1,199 dwelling units. Cumulatively there exists the potential for an additional 2,406 residential dwelling units within the current City boundaries.

Approximately 260-acres within the SOI adjacent to the northwestern City limits are proposed for annexation which requires rezoning, which is a component of the proposed Project. **Table 6** identifies proposed General Plan Residential designations and Zoning classifications for 37 of the total 58 existing parcels within the 260-acres. Development of these parcels plus the existing 39 existing residences will add an additional 1,385 residential units to the City’s inventory and increase the population by 3,823 persons. Of these residences, 1,346 will be newly constructed.

In order to determine traffic impacts associated with the development of the various vacant parcels an assumption is made that 85 percent of future residential development will be single family, whereas, 15 percent will be multi-family. This assumption is based on the projected distribution of dwelling unit types identified in **Table T-1**. The Table reflects **Tables 3** through **6** which cumulatively identify a distribution of 85.1 percent single family and 14.9 percent multi-family classified lands in the City. **Table T-1** identifies the vehicle trips that would be generated by the various vacant land development scenarios identified in **Tables 3** through **6**.

Traffic generation for single family residences is based 9.57 average daily trips (ADTs) and for multi-family residences the factor is 6.90 ADTs. These trip generation factors were utilized in the *URBEMIS2007* for Windows air quality computer model (*Version 9.2.4*).

TABLE T-1 Traffic Generation (ADTs)										
Dwelling Unit Type	Existing	ADTs	Approved	ADTs	City GPA/ Rezone	ADTs	Annex GPA/ Rezone	ADTs	Total DUs	Total ADTs
Single Family	655	6,268	548	5,255	742	7,101	1,074	10,278	3,019	28,902
Multi-family	4	28	0	0	457	3,153	272	1,877	733	5,058
Totals	659	6,296	548	5,255	1,199	10,254	1,346	12,155	3,752	33,960

Cumulatively, the potential exists for the development of an additional 3,752 residential units which could result in a traffic increase of 33,960 ADTs impacting the existing road system which is a **potentially significant** increase. However, the construction of that number of residential units is projected to be developed over a 67 year time period, or by the Year 2073. The number of residential units that would be constructed would average approximately 56 units per year generating approximately 515 ADTs per day, which is **less than significant** within the City and the area proposed for rezoning.

Regardless, increased traffic congestion and decreased levels of service associated with future residential development will be evaluated on a project-by-project basis as based on the number of residential units proposed by a project. A 200 lot subdivision may require a traffic study whereas, a 30 unit one, may not, depending on location. Furthermore, in addition to requiring projects to undertake necessary frontage improvements, the City imposes a traffic impact mitigation fee to address City wide traffic improvements. Transportation impacts associated with the adoption and implementation of the *Housing Element Update* are **less than significant** within the City and the area proposed for rezoning.

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

The *Housing Element Update* anticipates the development of 411 residential housing units within the plan period and a significant number thereafter. The development of these units will not result in any changes to air traffic patterns, nor would the anticipated amount of development result in any substantial safety risks related to aircraft traffic. Residential development in proximity to the Corning Municipal Airport is strictly regulated through the *Comprehensive Airport Land Use Plan*, resulting in **no impact** with respect to airport traffic related issues.

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

Any future residential projects constructed as a result of the *Housing Element Update* will be constructed to the City's roadway safety standards. Through the City's review process, future development projects will be evaluated for potential safety impacts. Where needed, appropriate mitigation measures will be required to reduce potential impacts to a **less than significant** level.

- e. *Result in inadequate emergency access?*

Any future residential projects constructed as a result of the *Housing Element Update* will be required to conform to traffic and safety regulations that specify adequate emergency access measures. Future development projects will be evaluated to determine adequacy of emergency access prior to their approval, resulting in a **less than significant** impact regarding emergency access.

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

Implementation of the *Housing Element Update* will have **no impact** on existing routes of alternative transportation. The *City of Corning General Plan Circulation Element* includes policies that place a high priority on the use of bicycles within the SOI, and calls for the adoption of a bicycle plan to provide a contiguous path system for the City. The *Circulation Element* further states that one way to encourage bicycle use is to require collector or arterial streets allowing for bicycle right-of-ways within new development. The *Housing Element Update* will have a less than significant impact regarding modes of alternative transportation.

Conclusion: The proposed Project does not impact the capacity of the existing area road system, thereby resulting in **less than significant impacts** on transportation and circulation.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. UTILITY AND SERVICE SYSTEMS <i>Would the project:</i>				
<ul style="list-style-type: none"> a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or new or expended entitlements needed? e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? g. Comply with federal, state, and local statutes and regulations related to solid waste? 			<ul style="list-style-type: none"> X X X X X X 	<ul style="list-style-type: none"> X

Existing Environmental Setting: Before a development permit is granted, it must be determined that public services and facility systems are adequate to accommodate any increased demand generated by a proposed project. Costs associated with site improvements are an important component of new residential development costs. Site improvements costs are applied to provide sanitary sewer, water service and other infrastructure for the project. In addition, the City may require the payment for various offsite improvements as part of project mitigation measures (e.g., payment towards an offsite traffic signal). Developers of new residential projects are also required to construct all onsite streets, sidewalks, curb, gutter and affected portions of offsite arterials. The following provides information regarding the adequacy of public services and facilities.¹⁵

¹⁵ The majority of the information is derived from the 2005 *Municipal Service Review of the City of Corning, Tehama County, California*.

Wastewater Collection and Treatment – The sewer system is a closed sanitary sewer system that collects wastewater from all City residents and businesses and transports it to the Wastewater Treatment Plant (WWTP) southeast of the City. The sewer collection system is composed largely of lines measuring six or eight inches in diameter that extend down the centerline of City streets.

The City's original sewer system was constructed over 85 years ago, eliminating the problem of mixed sewer collection and septic tank systems in the City. The City has been proactive in maintaining its sewer system – it replaced the majority of the old sewer lines between 1997 and 2000 to avoid costly repairs and replacements in the future, and in anticipation of growth. This also reduced problems with infiltration and inflow. The funding for the replacement project came from a Farm Home Loan, and the project was carried out in three stages. In all, approximately 35,700 linear feet of sewer lines were replaced at a cost of \$3,070,000.

A number of future capital improvements are also needed that include the extension of sewer main lines, improvements to the lift stations, and future sewer expansion engineering. The sewer collection system is composed largely of lines measuring six or eight inches in diameter. While these lines appear to be suitable to the current City population, increased flows may require the replacement with larger diameter collector and trunk lines to serve new areas.

The proximity of existing sewer lines to future annexations varies by location. In some areas, the existing system is in close proximity – between 200 and 1,500 feet. Other areas face challenges in connecting to the system, largely due to changes in topography and sheer distance. These areas may require the construction of new lines and lift (pump) stations to raise the wastewater to a higher elevation to continue gravity flow at an acceptable slope and depth.

In anticipation of the growth and development within the SOI, the City prepared estimates for design and construction of new trunk sewer and water mains in the northwest and southwest areas of the City. Current projections indicate that the northwestern area of the City (Blackburn Avenue to Gallagher and I-5 to Highway 99-W) will require \$622,000 for sewer improvements. The southwestern area (Fig Lane to Viola Avenue, and I-5 to the Northern Pacific Railroad) will need \$2,542,500 in funding according to the 2005 *Northwest and Southwest Corning Area Drainage Study and Assessment of Related Water, Sewer, and Street Needs*. The sources of funding for these projects will include impact and annexation fees.

The City's Wastewater Treatment Plant (WWTP) is situated between the City and Sacramento River off Gardiner Ferry Road, approximately 3.5 miles east of the City. The WWTP is operated privately under contract with the City to maintain the sewer collection system and coordinate with the Regional Water Quality Control Board (RWQCB) and Air Resources Board. The facility is permitted by the RWQCB to discharge up to 1.75 million gallons per day (mgd), but has a capacity of 1.0 mgd. The WWTP was expanded to a capacity of 1.4 mgd (1,818 additional homes/220 gpd per home/450 acres) in 2005 and funded by a Rural Farm Home loan and new sewer rates and connection fees.

Assuming that future development of the City results in approximately 24,300 new residents, this population in addition to the existing population of 7,000, yields an estimated future population of 31,300 which is equivalent to approximately 11,300 households. At a rate of 220 gpd per household, the WWTP will expect to receive 2.5 mgd. The City will be required to expand the WWTP by 1.1 mgd again in the future.

Water Service – The City supplies domestic water to residents located within the City limits. City water originates from ten well locations, which consist of deep well turbine pumps that pump ground water from the deep, unconfined aquifer located beneath the City. Water quality is generally good, but three additional wells remain off line due to detected or imminent contamination by Tetrachloroethylene (TCE) or Methyl Tertiary Butyl Ether (MTBE). The Regional Water Quality Control Board is currently monitoring the contamination and is facilitating remediation.

In 1994, 1,863 connections to the water distribution system were present in the City. This is composed of 1,631 residential, 212 commercial, 5 industrial, and 15 public authority connections. All connections are operated on a metered rate system, and all agricultural irrigation water is provided from outside sources. In 1994, there were approximately 23 miles of water mains (121,200 linear feet) and two water storage tanks to equalize pressure: one 100,000 gallon tank at Third and Butte streets and a second 5,000 tank supplying the South Avenue area. Water lines in the City are typically 8 inches in diameter, with a range from 4 to 15 inches.

All residential and commercial water service customers in the City are metered for water use. These fees fund the operation and maintenance of the water system. New development is subject to payment of impact fees that will be used to provide new wells to supplement the public water system.

Currently, the water distribution lines maintained by the City do not extend beyond the City limits into the areas proposed for future annexation. Distance varies from 200 feet to 0.25 mile. Future developments will be required to extend water lines and loop the distribution system whenever feasible to provide required fire flows and minimize dead end water lines. According to the 20 year plan, the City will need to add nine new well sites, to be acquired during the subdivision process. Developers will also be required to dedicate land for future well sites, and may be required to construct new wells, pumps, controls, and other appurtenances to City standards. Additionally, while current City distribution lines are currently adequate in size, they often do not have the capacity or standards required to support future development. Some water lines may need to be replaced completely with larger pipes in order to serve residents in the expanded sphere. The cost of these improvements related to increased development will be borne upon the developers through impact fees or required construction or replacement of facilities. Master drainage, wastewater collection and roadway system plans will be needed to efficiently handle additional development surrounding the existing city.

Storm Water Drainage – If the City has one significant infrastructure constraint that is readily identified, it is the storm drainage system. The City uses a combination of underground pipes and surface channels to drain storm water from improved areas of the City. The main surface channel is the Blackburn–Moon Drainage Ditch, which is a highly modified natural channel. It is used to collect storm water drainage and direct it out to the WWTP for eventual discharge to the Sacramento River. Jewett Creek is a perennial stream that originates west of the City and flows through the southern portion of the City. It receives some surface drainage from less intensely developed portions of the City. In the late 1980s, it was planned as a major collector of storm water drainage from the southern portions of the City.

The drainage inside the City is problematic because of the flat topography of the area. An expansion of the storm water system will actually improve the current drainage situation because it will allow surface runoff to flow away from the City. Onsite detention facilities are standard for commercial developments. The current standard for detention is to meet the needs

of a 25-year storm for a period of four hours. These standards are currently being met; however, the two regions of concern for the City are between the City and the Sacramento River, and just west of the City in the Red Hills area. The City needs to revisit the concept of a Master Drainage Plan to reduce loads on the City's WWTP and to more efficiently handle drainage. The City is currently studying the issue of storm water system improvements between Gallagher and North Street, across to SR 99W.

Significant problems will be generated as more development occurs in the northeastern portion of the City. In this location, there is more variation in topography, and access to the Blackburn-Moon Ditch will require lift stations for storm water flows. The City needs to develop a policy of onsite detention and retention, especially on projects with ten or more homes. The outfall line to the Sacramento River will either need to be increased in size, or a second parallel outfall line constructed added to handle the increased amounts of treated effluent.

According to the *City of Corning General Plan Public Facilities Element*, the City has a franchise agreement with Corning Disposal Service to collect solid waste from homes and businesses and transport the materials to the Tehama County Landfill in Red Bluff. This landfill also services the cities of Red Bluff and Tehama as well as the unincorporated areas of Tehama County. The Public Facilities Element notes that the landfill will last the County until the year 2010.

Discussion of Checklist Answers:

- a. *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*
- b. *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?*
- e. *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

The construction of new residential development as a result of adoption and implementation of the *Housing Element Update* will increase use of the City's wastewater treatment plant. Specific individual development projects will be reviewed to ensure that there are localized or project specific wastewater treatment impacts. In addition, the City imposes residential development fees specific to sewer connections. New development will also be required to comply with all *General Plan* goals, policies, and implementation measures, reducing impacts to a **less than significant** level.

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

New development has the potential to increase stormwater runoff due to the introduction of impervious surfaces. However, as new residential development is proposed, environmental review will be undertaken on a project-by-project basis. In addition, the *Housing Element Update* indicates that the City assesses impact fees for storm drainage. Adherence to *General Plan* goals, policies, and implementation measures, along with adherence to any mitigation measures imposed as a result of environmental review will reduce impacts on storm drainage to a **less than significant** level.

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

In addition to the *Housing Element Update's* indication that the City's water supply system can serve new development for the next ten years, the City's Director of Public Works also noted that the City has planned to serve 50 to 100 new connections each year. Evaluations have projected an average of 56 connections per year. Residential development anticipated in the *Housing Element Update* will be assessed development fees for the provision of water service. Therefore, the *Housing Element Update* will have **less than significant** impacts to water supply services.

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

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

The volume of solid waste anticipated to be generated by residential housing development within the City is not expected to adversely impact the Tehama County Landfill. In addition, all future development within the City will comply with applicable elements of the California Solid Waste Reuse and Recycling Access Act of 1991, and each development project shall undergo environmental review to determine solid waste impacts. Therefore, potential impacts are considered to be **less than significant**.

Conclusion: The proposed Project will result in **less than significant impacts** on utilities and service.

Issues
XVIII. Energy Conservation

According to the CEQA Guidelines Appendix F; "The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

- (1) decreasing overall per capita energy consumption,
- (2) decreasing reliance on natural gas and oil, and
- (3) increasing reliance on renewable energy sources.

In order to assure that energy implications are considered in project decisions, CEQA requires that EIRs include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful and unnecessary consumption of energy (Public Resources Code section 21100(b)(3))."

Whereas, this Initial Study does not call for the preparation of an EIR, but rather a Mitigated Negative Declaration, the City determined that an energy discussion was appropriate. However, the degree and depth of the discussion will not be to the level of one which would be contained in an EIR.

Energy-related costs could directly impact the affordability of housing in the City. Title 24 of the California Administrative Code sets forth mandatory energy standards for new development and requires the adoption of an "energy budget." Subsequently, the housing industry must meet these standards and the County is responsible for enforcing the energy conservation

regulations. Alternatives that are available to the housing industry to meet the energy standards include, but are not limited to:

- A passive solar approach that requires suitable solar orientation, appropriate levels of thermal mass, south facing windows and moderate insulation levels.
- Higher levels of insulation than what is previously required, but not requiring thermal mass or window orientation requirements.
- Active solar water heating in exchange for less stringent insulation and/or glazing requirements.

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to the City. PG&E is a privately owned utility whose service area covers most of northern and central California. PG&E provides a variety of energy conservation services for residents, as well as energy assistance programs for lower income households to help lower income households to conserve energy and control utility costs. These programs include the California Alternate Rates for Energy (CARE) and the Relief for Energy Assistance through Community Help (REACH) programs. The CARE program provides a 15 percent monthly discount on gas and electric rates to households with qualified incomes, certain non-profit organizations, homeless shelters, hospices and other qualified non-profit group living facilities. The REACH program provides one-time energy assistance to customers who have no other way to pay their energy bills. The intent of REACH is to assist low-income households, particularly the elderly, disabled, sick, working poor and the unemployed, who experience hardships and are unable to pay for their necessary energy needs. PG&E has also sponsored rebate programs that encourage customers to purchase more energy-efficient appliances and heating and cooling systems.

The Self Help Home Improvement Program (SHHIP) manages a weatherization program in Tehama County for lower-income households under contract with PG&E, which also provides the funding. Eligible households may receive attic insulation, caulking, door replacement and weather-stripping, and glass replacement. The City shall actively pursue working with SHHIP and PG&E to institute a weatherization program as previously identified.

HCD is encouraging the use of Energy Efficient/Green Building features as identified in **Table E-1**. A new bonus category has been added to NOFA's to reward developers that use energy efficient products that will enhance new units. Therefore, a new bonus opportunity has been developed. Applicants must self certify that items 2, 3, 4, 5, 6, 7, 10, 11, 12, and 13 are included in the units to be constructed, and that at least two of the remaining items (1,8 and 9) will also be included in the units to be constructed.

Additionally, appliances that are customarily provided with the units, such as hot water heaters and dishwashers, or heating/cooling systems, should all meet the ENERGY STAR® standards.

The *Housing Element Update* recommends a goal and several policies addressing energy conservation. The *Housing Element Update* calls for the following actions, none of which would result in potential impacts on the man-made and natural environment. There is **no impact**.

GOAL EC – Promote the Efficient Use of Energy and Contribute to the Improvement of the Air Quality of the Region

Policy EC-1 – Promote the Efficient Use of Energy and Reduce the Long-Term Operational Cost of Housing.

TABLE E-1	
ENERGY EFFICIENT/GREEN BUILDING SELF-CERTIFICATION CHECK LIST FORM 3A	
Energy Efficient/Green Building Features	Current Requirement
SITE	
1. Use plant and tree species that require low water use in sufficient quantities and install irrigation system using only low-flow drip, bubblers, or low-flow sprinklers.	Two of three of items #1, 8, or 9 must be met for Bonus Consideration
MATERIALS AND RESOURCES	
2. Use engineered lumber a. Beams and Headers b. Wood I-Joists or web trusses for floors and ceilings	Essential for Bonus Consideration
3. Use Oriented Strand Board (OSB) a. Floor, Wall and Roof sheathing.	Essential for Bonus Consideration
4. Provide effective air sealing. a. Seal sole plates. b. Seal exterior penetrations at plumbing, electrical and other penetrations. c. Seal top plate penetrations at plumbing, electrical, cable and other penetrations. d. Weather-strip doors and attic access openings. e. Seal penetrations in interior equipment closets and rooms. f. Seal around bathtub drain penetrations in raised floors.	Essential for Bonus Consideration
5. Install and flash windows in compliance with window installation protocols.	Essential for Bonus Consideration
6. Exterior Doors a. Insulated or solid core. b. Flush, paint or stain grade shall be metal clad or have hardwood faces. c. Factory primed on six sides with a one year warranty.	Essential for Bonus Consideration
7. Select durable non-combustible roofing materials which carry a three-year contractor installation guarantee.	Essential for Bonus Consideration
ENERGY EFFICIENCY	
8. Install ENERGY STAR® Ceiling Fans in living areas and all bedrooms; install a whole house fan with insulated louvers; or install an economizer.	Two of three of items #1, 8, or 9 must be met for Bonus Consideration
9. Install ENERGY STAR® appliances in each unit, including but not limited to; a. Dishwashers b. Refrigerators c. Clothes washers	Two of three of items #1, 8, or 9 must be met for Bonus Consideration
10. Install gas storage water heater with an Energy Factor (EF) of 0.62 or greater and a capacity of at least 30 gallons for one- and two- bedroom units and 40 gallons for three-bedroom units or larger.	Essential for Bonus Consideration
WATER EFFICIENCY	
11. Use water saving fixtures or flow restrictors. a. Kitchen and Service Areas < 2 gallons per minute (gpm). b. Bathroom Sinks < = 1.5 gallons per minute (gpm). c. Showers and Bathtubs < = 2.5 gallons per minute (gpm).	Essential for Bonus Consideration
INDOOR ENVIRONMENTAL QUALITY	
12. Use Low-VOC paint and stain. a. Flat interior wall/ceiling paints & stains < 50gpl VOCs. b. Non-flat wall/ceiling paints & stains <150gpl VOCs.	Essential for Bonus Consideration
13. Floor coverings a. Light and medium traffic areas shall have vinyl or linoleum at least 3/32" in thickness. b. Heavy traffic areas shall have vinyl or linoleum at least 1/8" in thickness. c. Carpet shall comply with HUD/FHA UM 44C, or alternatively, cork, bamboo, linoleum, or hardwood floors shall be provided in all other floor areas.	Essential for Bonus Consideration

Policy EC-1 calls for utilization of the development review process to incorporate energy conservation techniques into the design of proposed subdivisions and residences such as proper orientation to benefit from active and/or passive solar heating and cooling.

The City will evaluate the provision of up to a 25 percent density bonus for residential development projects if the following two conditions are met:

1. The project would result in an energy savings beyond those obtained with conventional design and construction techniques.
2. The amount of increased density is proportional to the amount of increased energy efficiency achieved that exceeds adopted regulations.

This policy would serve to maximize energy conservation in new housing and would be incorporated into the Zoning Ordinance.

Policy EC-2 – When available, allow the use of rehabilitation assistance funds to make residences more energy efficient.

As part of the residential rehabilitation program identified in Policy HC-1 energy conservation improvements would be eligible for financial assistance.

Policy EC-3 – The City, in partnership with PG&E, will develop and distribute pertinent information regarding energy conservation benefits and available energy efficiency incentive programs to residents, developers and housing contractors.

At minimum, City Staff would meet yearly with PG&E, developers, and contractors to discuss energy conservation and efficiency incentive programs available. In partnership with a PG&E and non-profit housing providers, information on benefits of energy conservation and available energy conservation incentive programs would be made available to the general public in addition to developers and contractors.

Policy EC-4 – Evaluate the establishment of a weatherization grant and loan program in cooperation with PG&E and housing non-profit agencies.

The City in partnership with non-profit housing providers will evaluate the establishment of a program which will reduce energy consumption in existing housing.

Policy EC-5 – The City will encourage new residential development and rehabilitation projects to incorporate sustainable building design and siting, construction and operation. The City will promote and encourage development design, construction and operation that reduces energy consumption, particularly reduction in the use of fossil fuels and potable water; incorporates alternate and renewable energy sources and recycled water; provides more natural light; reduces storm runoff; uses renewable, local, salvage and nontoxic building materials; reduces use of non-recyclable materials and promotes recycling; and improves indoor air quality.

In general, the City shall strive to reduce the amount of energy consumed by existing users throughout the City in addition to all future residential, commercial, industrial, and public service facility development. Implementation of the policies and efforts identified would assist to reduce energy consumption to a ***less than significant level***.

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE				
a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		X		
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)			X	
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?		X		

- a. Based on policy measures that are an integral part of the *Housing Element Update*, the location in Tehama County, implementation measures advanced, and mitigation measures proposed, the requested *Housing Element Update* does not have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California prehistory. Potential impacts are reduced to a ***less-than-significant level***.

The number of residential housing units proposed in the *Housing Element Update* can be accommodated within the Corning City Limits and the 260-acre area proposed for rezoning that will eventually be annexed to the City. The information provided in this Initial Study demonstrates that the implementation of the City's standard policies and codes, along with adherence to environmental review procedures where applicable, would reduce potential impacts to a ***less than significant*** level.

- b. The proposed Project does have the potential to create cumulative impacts with respect to air quality emissions, but based on mitigation measures advanced and the projected rate of residential development, these impacts are not cumulatively considerable. It also needs to be recognized that all future significant residential development is subject to environmental review and mitigation measures which would be incorporated into each specific residential

project. Therefore, cumulative impacts related to implementation of the Housing Element Update are considered ***less than significant***.

- c. The proposed *Housing Element Update* does have the potential to result in increased residential development that could cause minimal adverse effects on humans, directly and indirectly due to air quality, soils, greenhouse gas emissions, and noise impacts. However, these potential adverse effects are not considered substantial or significant due to measures that are an integral part of the proposed *Housing Element Update* and the advancement of mitigation measures, thereby, reducing potential impacts to a ***less-than-significant level***.

REFERENCE DOCUMENTS

The following studies and correspondence were utilized to identify potential impacts and mitigation measures:

Butte, Colusa, Glenn, Shasta, Sutter, Tehama and Yuba Counties. *2007 Air Quality Attainment Plan, Northern Sacramento Valley Air Basin*

California Air Resources Board. April 1, 2008. *Ambient Air Quality Standards*

California Department of Finance. January 1, 2009. *Data for Population Figures*

City of Corning. 1991. *Comprehensive Airport Land Use Plan*

City of Corning. May 24, 1994. *The Corning General Plan, Corning, California*

City of Corning. January 18, 1997. *Final Draft Highway 99W Corridor Specific Plan*

City of Corning. December 2001. *City of Corning Zoning*

Diaz Associates. July 20, 2009. *City of Corning Draft Housing Element Update 2009-2014*

Federal Emergency Management Agency. September 27, 1992. *Flood Insurance Rate Map, community Panel Number 060398 0005 C and 065064 0665 B*

Impact Sciences. July 2006. *Sun City Tehama Specific Plan Revised Draft EIR*

PMC. March 31, 2009. *Tehama County General Plan Update 2009-2029*

PMC. September 2008. *Tehama County 2008-2028 General Plan Draft Environmental Impact Report*

Rimpo and Associates, Inc. February 2008. *URBEMIS 2007, Version 9.2.4*

State of California Department of Water Resources. January 20, 2006. *Groundwater Bulletin 118, Hydrologic Region Sacramento River Sacramento Valley Groundwater Basin.*

Tehama County. 2006. *Farmland Mapping and Monitoring Program Map – Tehama County 2002*

United States Bureau of the Census. 2001. *Profiles of General Demographic Characteristics, 2000 Census of Population and Housing, California*

United States Department of Agriculture, Soil Conservation Service. August 1974. *Soil Survey of Tehama County, California.*

U.S. Fish & Wildlife Service National Wetlands Inventory. July 27, 2009. *Wetlands Mapper*

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ATTACHMENT 1

III. AIR QUALITY

Mitigation Measure AQ-1

Subject to a final determination by the TCAPCD, all construction contracts shall include construction dust mitigation measures that contain the following minimum criteria and related to the use of diesel equipment, all construction contracts will comply with California Air Toxic Control Measures related to off-road, on-road, stationary, portable and other applicable category of such equipment. Such measures shall apply to all phases of construction. Examples of measures that shall be used to reduce construction dust and fugitive dust pursuant to TCACD Rule 4:24 for "Large Operations," include, but not limited to:

- *Provide emission offsets for PM_{10} emissions exceeding the 137 lbs. per day standard pursuant to a formula developed by the County with identifiable source of emission credits which can be acquired.*
- *Alternatives to open burning of vegetative material on the project sites shall be used unless otherwise deemed infeasible by the TCAPCD. Cleared vegetation shall be treated by legal means other than open burning, such as chipping or mulching for conversion to biomass fuel.*
- *Contractors shall be responsible for ensuring that adequate dust control measures as set out in the TCAPCD Fugitive Dust Permit are implemented in a timely and effective manner during all phases of Specific Plan area development and construction.*
- *All material excavated, stockpiled, or graded shall be watered a minimum of twice per day during dry conditions to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air quality standard. Watering will occur preferably in the mid-morning and after work is completed each day.*
- *All construction areas (including unpaved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions.*
- *All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved roads.*
- *All land clearing, grading, earth moving or excavation activities shall be suspended when winds exceed 20 miles per hour.*
- *All inactive portions of the development site shall be seeded and watered (or other equivalent erosion control products installed) until a suitable grass cover is established.*
- *The applicant shall be responsible for applying non-toxic soil stabilizers (according to manufacturer's specifications) to all inactive Specific Plan construction areas.*
- *All trucks hauling dirt, sand, soil or other loose material shall be covered or shall maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the trailer) in accordance with the requirements of CVC Section 23114.*

- *All material transported off-site shall be either sufficiently watered or securely covered to prevent a public nuisance.*
- *During initial grading, earth moving, or site preparation, contractors shall be required to construct a paved (or dust palliative treated) apron, at least 100 feet in length , onto the Specific Plan area from the adjacent paved road(s).*
- *Paved streets adjacent to the construction sites shall be swept or washed at the end of each day to remove excessive accumulations of silt and/or mud which may have accumulated as a result of Specific Plan area construction activities.*
- *Adjacent paved streets shall be swept at the end of each day if substantial volumes of soil materials have been carried onto adjacent public paved roads from the construction areas.*
- *Wheel washers shall be installed where Project vehicles and/or equipment access paved streets from unpaved roads.*
- *Contractors shall provide documentation to the TCAPCD demonstrating that the heavy-duty (greater than 50 horsepower) off-road vehicles to be used in the construction of the Project, including owned, leased and subcontractor vehicles, will meet CARB standards for NOx and particulate matter.*
- *Contractors shall be responsible to ensure that all construction equipment is properly tuned and maintained.*
- *Equipment operators shall be instructed to minimize equipment idling time to five (5) minutes.*
- *Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators whenever possible.*
- *Equipment used in grinding wood waste will require either state registration through the Portable Equipment Registration Program, or a stationary source permit and authority to construct through the TCAPCD.*
- *Equipment used in the process of making asphalt such as sand and gravel screens or asphalt batch plants will require either state registration through the Portable Equipment Registration Program, or a stationary source permit and authority to construct through the TCAPCD.*

Mitigation Measure AQ-2

The City of Corning shall require the implementation of Standard Mitigation Measures and feasible Best Available Mitigation Measures for all residential developments. The following measures constitute potentially suitable options:

- *Orient residences and install landscaping that takes advantage of passive solar design principles. A principal component is to increase energy efficiency by 20 percent over California Title 24 minimum requirements.*
- *Provide for pedestrian access between higher density developments and TRAX bus service stops.*
- *Where feasible provide bus turnouts, passenger benches, and shelters.*
- *Use energy-efficient lighting (includes controls) and process systems such as water heaters, furnaces and boiler units.*
- *Utilize low-NOx hot water heaters.*
- *Install solar water heaters for at least 25 percent of the residential units.*
- *Utilize energy-efficient and automated controls for air conditioning.*

- *Provide for synchronized traffic signals along streets affected by Project development as deemed necessary by the local transportation planning agency.*
- *All new wood burning devices shall be EPA Phase II certified.*
- *Contribute to traffic-flow improvements (e.g., right-of-way, capital improvements, etc.).*
- *Install an electrical outlet at the front and back of all residential units for electrical yard equipment.*

Mitigation Measure AQ-3

The City of Corning, as part of their rezoning action, will prezone the area proposed for future annexation(s) so that not more than 1,230 residential dwelling units can be developed.

Mitigation Measure AQ-4

Sensitive Receptors within the City can be less than 500-feet from the nearest edge of I-5. Approval of structures associated with sensitive receptors closer than 500-feet could be permitted if a project proponent can demonstrate through air quality modeling or monitoring that locating such uses at a distance less than 500-feet does not result in health risks to sensitive receptors located greater than those at 500-feet.

IV. BIOLOGICAL RESOURCES

Mitigation Measure B-1

A 50-foot set back from the riparian dripline of Jewett Creek or from the top of bank, whichever is greater is recommended to provide protection of Jewett Creek and its riparian corridor. If construction of storm drainage outlets or other work must occur within the Creek corridor, a botanical survey should be conducted in the spring to determine if the activity would affect any special status plants. If plants are present and would be affected, specific mitigation should be determined in consultation with DFG. Mitigation would likely consist of modifying the project to avoid special status plant populations or removing and relocating the near surface soils following seed set.

Furthermore, if installation of storm drain outlets or other work is required in the stream zone, earth-moving construction activities in or adjacent to the creek should be restricted to periods when the creek is dry, Best Management Practices should be implemented for erosion control, and storm water runoff should be pre-treated prior to release into Jewett Creek.

Although in-water future project work is not proposed, indirect effects to special-status fish species such as the Chinook salmon and Central Valley steelhead in the Sacramento River during construction, could result if storm water runoff from project sites enters Jewett Creek and degrades spawning or rearing habitat downstream. However, by restricting earth-moving construction activities in or adjacent to Jewett Creek to dry periods, Best Management Practices implemented for erosion control, and pre-treatment of storm water runoff prior to its release, will result in no adverse effects to special-status fish species.

Additional measures to protect species associated with the Jewett Creek corridor may be required by the Corps, DFG, and/or Regional Water Quality Control Board if the corridor is directly impacted by project activities. If a Corps permit is required, the Corps may require endangered species consultation with the National Marine Fisheries Service. The Corps would incorporate the conservation measures recommended by NMFS into its permit.

Mitigation Measure B-2

To the extent practicable, the discharge or dredged or fill material into “waters of the U.S.”, including wetlands, shall be avoided (this also includes waters not subject to Corps jurisdiction, but subject to RWQCB jurisdiction). This includes avoiding activities that would obstruct the flow of, or alter the bed, channel, or bank of any intermittent or ephemeral creeks. If complete avoidance is implemented, no further measures are necessary. If complete avoidance is not practicable, the following measures shall be implemented:

- Prior to any discharge of dredged or fill material into “waters of the U.S.”, including wetlands, authorization under a Nationwide Permit or Individual Permit shall be obtained from the Corps. For any features determined to not be subject to Corps jurisdiction during the verification process, authorization to discharge (or a waiver from regulation) shall be obtained from the RWQCB. For fill requiring a Corps permit, water quality certification shall be obtained from the RWQCB prior to discharge of dredged or fill material.*
- Prior to any activities that would obstruct the flow of, or alter the bed, channel, or bank of any intermittent or ephemeral creeks, notification of streambed alteration shall be submitted to the DFG; and, if required, a streambed alteration agreement shall be obtained.*
- Construction activities that will impact “waters of the U.S.” shall be conducted during the dry season to minimize erosion.*
- Appropriate sediment control measures to protect avoided “waters of the U.S.” shall be in place prior to the onset of construction and shall be monitored and maintained until construction activities have ceased. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Excess excavated soil shall be used on site or disposed of at a regional landfill or other appropriate facility. Stockpiles that are to remain on the site through the wet season shall be protected to prevent erosion (e.g. silt fences, straw bales).*
- All pedestrian and vehicular entry into “waters of the U.S.”, including wetlands, to be avoided shall be prohibited during construction.*
- Loss of wetlands shall be compensated at a minimum of a 2:1 creation ratio (i.e. two acres created for each acre destroyed). This can be accomplished through purchase of appropriate credits at a Corps approved mitigation bank, appropriate payment into a Corps approved in-lieu fee fund, or on-site or off-site creation, monitoring, and maintenance (as approved by the Corps or RWQCB).*
- Loss of “other waters” shall be compensated through purchase of appropriate credits at an Corps approved mitigation bank, appropriate payment into an Corps approved in-lieu fee fund, or through placement of avoided waters and associated riparian buffers into a conservation easement or similar protective mechanism. The amount of avoided waters and riparian buffers to be permanently protected shall be sufficient to offset the impact and shall be*

determined by the Corps and the applicant during the permitting process.

- Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e. Corps, RWQCB, DFG) shall be implemented and completed. All measures contained in the permits or associated with agency approvals shall be implemented.

Mitigation Measure B-3

Conduct a USFWS protocol-level survey for the vernal pool fairy shrimp and vernal pool tadpole shrimp within suitable habitats occurring within the proposed project site, or assume the species are present. If the species are not detected during the protocol-level survey, no further measures or mitigation is required. If either of the species is detected during protocol-level surveys or the presence of the species is assumed in-lieu of conducting surveys, and proposed activities will result in direct or indirect impacts to potential habitat, the following measures shall be implemented:

- Formal consultation with the USFWS shall be initiated under Section 7 or Section 10 of the ESA, as appropriate. No direct or indirect impacts to suitable habitat for these species shall occur until Incidental Take authorization has been obtained from the USFWS.
- For every acre of habitat directly or indirectly affected, at least two vernal pool preservation credits shall be dedicated within a USFWS-approved ecosystem preservation bank. With USFWS approval, appropriate payment into an in-lieu fee fund or on-site preservation may be used to satisfy this measure.
- For every acre of habitat directly affected, at least one vernal pool creation credit will be dedicated within a USFWS-approved habitat mitigation bank. With USFWS approval, appropriate payment into an in-lieu fee fund, on-site creation, or off-site creation may be used to satisfy this measure.

V. CULTURAL RESOURCES

Mitigation Measure CR-1

Should artifacts or unusual amounts of stone, or shell be uncovered during construction activities, activities shall cease in the area until a qualified archaeologist evaluates the materials. The archaeologist shall examine the findings, assess their significance, and offer recommendations for procedures deemed appropriate to either further investigate or mitigate adverse impacts to those cultural resources that have been encountered (e.g., excavate the significant resource). These additional measures shall be implemented.

Mitigation Measure CR-2

If human bone or bones of unknown origin is found during construction, all work within 50 feet of the find shall stop until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary. The archaeologist may recommend contacting the County Coroner. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission who shall notify the person it believes to be the most likely descendant. The most likely descendant shall work with the Agency to develop a

program for reinternment of the human remains and any associated artifacts. No additional work shall take place within the immediate vicinity of the find until the identified appropriate actions have been completed.

VI. GEOLOGY AND SOILS

Mitigation Measure G-1

Implementation of Best Management Practices for erosion control of all disturbed areas to prevent eroded soil from entering Jewett Creek, Burch Creek and other major drainages shall be implemented. Measures include, but are not limited to the following:

- *Ground disturbing work for site development shall be limited to the dry season to the greatest feasible extent, and all erodible surfaces shall be protected by paving, mulching or landscaping, as provided in the erosion control plan (required) prior to the advent of the rainy season (September to March). Berms shall be provided around construction sites to contain sediment. If construction operations occur during rainy periods, use of erosion control measures, such as straw-bale dikes, gravel filters, stabilized construction entrances and sediment traps shall be required. No areas shall be left exposed during winter.*
- *Surface soils may be subject to erosion when excavated and exposed to weathering. Erosion and sediment control measures shall be implemented during and after construction to conform to acceptable erosion control and City grading standards. The erosion control plan shall include revegetation of denuded areas.*
- *Drainage facilities shall be lined as necessary to prevent erosion. A detailed geotechnical investigation shall be performed to determine specific site characteristics prior to construction of the roads and other improvements. A civil engineer shall be involved during the construction phase(s) to assure that recommendations are implemented or modified as necessary.*
- *To minimize dust/grading impacts during construction; no grading activity shall be conducted when sustained wind speeds exceed 25 miles per hour. Construction activities may occur during sustained wind speeds between 10 and 25 miles per hour provided dust control measures are increased and dust and erosion impacts are controlled to the satisfaction of City inspection staff.*
- *In areas where construction activities result in soil exposure, prompt replanting with native, compatible, drought-resistant vegetation shall be required.*
- *Native vegetation shall be left undisturbed where feasible.*

VII. GREENHOUSE GAS EMISSIONS

Mitigation Measure GGE-1

The following measures will be implemented where practicable. Although no emissions reduction was taken for the purposes of this Initial Study, the emission reduction measures will likely result in decreased greenhouse gas emissions:

- *All construction equipment shall comply with applicable California Air Resources Board requirements to ensure adequate construction dust and fugitive dust*

control. With respect to the use of diesel equipment, all construction contracts shall comply with California Air Toxic Control measures related to off-road, on-road, stationary, portable and other applicable category of such equipment.

- All applicable construction equipment shall be state registered through Portable Equipment Registration Program or shall apply for a stationary source permit from the TCAPCD.
- Pedestrian walkways, bikeways, trails should be provided, to reduce reliance on the automobile for short trips.
- Parks and school recreational facilities should be located within walking distance of residences, to reduce reliance on automobile trips.
- In development areas, trees, shrubs, and other community landscaping will be planted. Trees and plants sequester carbon dioxide.
- Bicycle parking facilities should be provided in existing and proposed commercial areas and parks.
- The parking lots in multi-family housing developments should be shaded with native, drought resistant trees to reduce a heat island effect.
- Passive solar landscape design elements should be considered during landscape design. For example, deciduous trees planted on the south aspect will provide shade in the summer and allow for sunlight to shine through the branches in the winter. Evergreen trees on the north and west sides will afford protection from the summer sun.
- Where irrigation is necessary, low-volume and directed sprinkler heads and/or drip irrigation should be used to save water and reduce energy demand associated with potable water conveyance.
- Tree selection in the landscape areas should consider species that are drought resistant and that have low emissions and high carbon sequestration potential.
- Plants with similar water needs should be grouped together, to increase efficiency of irrigation.
- Outdoor lighting fixtures should have dimming features to allow for minimum illumination levels needed for safety and security. Motion sensor lighting may be installed to heighten security, while also serving to reduce unnecessary lighting.
- Sustainable building materials should be considered as part of building design and construction.
- Colors of exterior building materials and coatings should consider a balance between reflectivity and light absorption. Lighter colors with higher reflective values reduce energy consumption by absorbing less heat and reducing reliance on air conditioning systems.
- Where feasible, windows and/or skylights in residences should be positioned in such a manner that the need for artificial light is reduced.
- Where feasible, windows in residences should be positioned in such a way that cross-ventilation will occur to reduce reliance on air conditioning systems.
- Energy-reducing programmable thermostats should be installed in residential homes.
- Water-saving appliances and water conserving features should be used, including low-flow toilets, water-saving showerheads, and dishwashers. At a minimum, requirements of the Energy Policy Act of 1992 for fixture performance will be met.

- *Participation in mandatory recycling programs, if implemented by the City, should be required of residents.*
- *The City should evaluate and consider exceeding Title 24 building standards for the purpose of increased energy efficiency including the construction of LEED certified residential and non-residential buildings.*

XII. NOISE

Mitigation Measure N-1:

- *Sound walls or earthen berms shall be utilized along the roadways, adjacent to future residential uses. Residences adjacent to Solano Avenue and 99W normally will require barriers approximately six-feet in height.*
- *Residences adjacent to I-5 could be exposed to traffic noise levels in excess of 75 dB Ldn based on evaluations undertaken for other projects in Tehama County. Future development of the parcels proposed for rezoning adjacent to I-5 will be required to comply with the exterior noise level standards which range between 60 dB and 65 dB Ldn. The standard is applied at the outdoor activity area. For single family residential uses, the standard would be applied at a patio or rear yard. For multi-family uses, the standard can be applied at individual patios or a common outdoor area such as a court yard or club house. Compliance with the outdoor noise level standards can be accomplished through the use of barriers, shielding by buildings, the use of setbacks, site design, or a combination of each. Preliminary barrier calculations based on other developments within Tehama County indicate that barrier heights could range between 10 feet in height to achieve the upper end 65 dB Ldn exterior noise level standard, and 14 feet in height to achieve the more restrictive exterior noise level standard of 60 dB Ldn. The combination of mitigation measures required to comply with the City exterior noise level standard will be determined when ensuing tentative subdivision maps or use permits illustrating lot locations and configurations and grading are submitted for approvals.*
- *If a barrier is used as a form of mitigation, the final barrier design shall be completed that recommends the size, location and type of barriers needed, if any, to ensure consistency with the Noise Element and shall be included as a condition for approval of tentative maps or use permits.*
- *Future residential development will be required to comply with an exterior noise level standard of 65 dB Ldn. Compliance with the outdoor noise level standards can be accomplished through the use of barriers, shielding by buildings, the use of setbacks, site design, or a combination of each. The combination of mitigation measures required to comply with the City's exterior noise level standard will be determined when tentative subdivision maps or use permits illustrating lot and/or building locations and configurations, final design and grading are submitted for entitlements. If a barrier is used as a form of mitigation, the final barrier design shall be completed that recommends the size, location and type of barriers needed, if any, to ensure consistency with the Tehama City Noise Element and shall be included as a condition for approval of the tentative maps or use permits.*
- *All residential uses are required to comply with the 45 dB Ldn interior noise level standard. A detailed analysis of interior noise levels shall be conducted when tentative subdivision maps are available for each residential area located adjacent to Solano Avenue, 99W, I-5 and the CFNR Railroad line and required*

as a condition of tentative map or use permit approvals. Improvements to building facades could include Sound Transmission Class rated windows and improved façade construction.

Mitigation Measure N-2

Construction activities shall be limited to the hours of 7 a.m. to 8 p.m. on the weekdays and from 9 a.m. to 5 p.m. on weekends and holidays unless an exemption is received from the City to cover special circumstances. In addition, all equipment shall be fitted with factory equipped mufflers, and in good working order.

MITIGATION MONITORING PROGRAM

This section is the Mitigation Monitoring Program (MMP) for the *City of Corning Housing Element Update*. The MMP includes a brief discussion of the legal basis for and the purpose of the program, discussion, and direction regarding complaints about noncompliance, a key to understanding the monitoring table, and the monitoring table itself.

LEGAL BASIS OF AND PURPOSE FOR THE MITIGATION MONITORING PROGRAM

California Public Resources Code Section 21081.6 requires public agencies to adopt mitigation monitoring or reporting programs whenever certifying an environmental impact report (EIR) or a mitigated negative declaration (MND). This requirement facilitates implementation of all mitigation measures adopted through the California Environmental Quality Act (CEQA) process.

The MMP contained herein is intended to satisfy the requirements of CEQA as they relate to the Final Mitigated Negative Declaration for the *City of Corning Housing Element Update*. It is intended to be used by City, participating agencies, project contractors, and mitigation monitoring personnel during implementation of the project.

Mitigation is defined by CEQA Guidelines Section 15370 as a measure that does any of the following:

- Avoids impacts altogether by not taking a certain action or parts of an action.
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifies impacts by repairing, rehabilitating or restoring the impacted environment.
- Reduces or eliminates impacts over time by preservation and maintenance operations during the life of the project.
- Compensates for impacts by replacing or providing substitute resources or environments.

The intent of the MMP is to ensure the effective implementation and enforcement of adopted mitigation measures and permit conditions. The MMP will provide for monitoring of construction activities as necessary, on-site identification and resolution of environmental problems, and proper reporting to Agency staff.

MITIGATION MONITORING PROGRAM TABLE

Mitigation Monitoring Table MMP-1 identifies the mitigation measures proposed for the *City of Corning Housing Element Update*.

The table has the following columns:

- **Mitigation Measure:** Lists the mitigation measure along with its number as identified in the Initial Study/MND for each specific impact.
- **Timing:** Identifies at what point in time, review process, or phase the mitigation measure will be completed.
- **Agency Monitoring/Consultation:** References the City of Corning Management Agency or any other public agency with which coordination is required to satisfy the identified mitigation measure.

- **Verification:** Spaces to be initialed and dated by the individual designated to verify adherence to a specific mitigation measure.

NONCOMPLIANCE COMPLAINTS

Any person or agency may file a complaint asserting noncompliance with the mitigation measures associated with the project. The complaint shall be directed to the Agency in written form, providing specific information on the asserted violation. The Agency shall conduct an investigation and determine the validity of the complaint. If noncompliance with a mitigation measure has occurred, the Agency shall take appropriate action to remedy any violation. The complainant shall receive written confirmation indicating the results of the investigation or the final action corresponding to the particular noncompliance issue.

TABLE MMP-1			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
III. AIR QUALITY			
<p>AQ-1 – Subject to a final determination by the TCAPCD, all construction contracts shall include construction dust mitigation measures that contain the following minimum criteria and related to the use of diesel equipment, all construction contracts will comply with California Air Toxic Control Measures related to off-road, on-road, stationary, portable and other applicable category of such equipment. Such measures shall apply to all phases of construction. Examples of measures that shall be used to reduce construction dust and fugitive dust pursuant to TCACD Rule 4:24 for “Large Operations,” include, but are not limited to:</p> <ul style="list-style-type: none"> • Provide emission offsets for PM₁₀ emissions exceeding the 137 lbs. per day standard pursuant to a formula developed by the County with identifiable source of emission credits which can be acquired. • Alternatives to open burning of vegetative material on the project sites shall be used unless otherwise deemed infeasible by the TCAPCD. Cleared vegetation shall be treated by legal means other than open burning, such as chipping or mulching for conversion to biomass fuel. • Contractors shall be responsible for ensuring that adequate dust control measures as set out in the TCAPCD Fugitive Dust Permit are implemented in a timely and effective manner during all phases of Specific Plan area development and construction. • All material excavated, stockpiled, or graded shall be watered a minimum of twice per day during dry conditions to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air quality standard. Watering will occur preferably in the mid-morning and after work is completed each day. • All construction areas (including unpaved roads) with vehicle traffic shall be watered periodically or have dust palliatives applied for stabilization of dust emissions. • All on-site vehicles shall be limited to a speed of 15 miles per hour on unpaved roads. • All land clearing, grading, earth moving or excavation activities shall be suspended when winds exceed 20 miles per hour. • All inactive portions of the development site shall be seeded and watered (or other equivalent erosion control products installed) until a suitable grass cover is established. • The applicant shall be responsible for applying non-toxic soil stabilizers (according to manufacturer's specifications) to all inactive Specific Plan 	<p>Before and during construction. During operations.</p>	<p>City, Contractor, and TCAPCD</p>	

TABLE MMP-1			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
<p>construction areas.</p> <ul style="list-style-type: none"> • All trucks hauling dirt, sand, soil or other loose material shall be covered or shall maintain at least two feet of freeboard (i.e., minimum vertical distance between top of the load and the trailer) in accordance with the requirements of CVC Section 23114. • All material transported off-site shall be either sufficiently watered or securely covered to prevent a public nuisance. • During initial grading, earth moving, or site preparation, contractors shall be required to construct a paved (or dust palliative treated) apron, at least 100 feet in length , onto the Specific Plan area from the adjacent paved road(s). • Paved streets adjacent to the construction sites shall be swept or washed at the end of each day to remove excessive accumulations of silt and/or mud which may have accumulated as a result of Specific Plan area construction activities. • Adjacent paved streets shall be swept at the end of each day if substantial volumes of soil materials have been carried onto adjacent public paved roads from the construction areas. • Wheel washers shall be installed where Project vehicles and/or equipment access paved streets from unpaved roads. • Contractors shall provide documentation to the TCAPCD demonstrating that the heavy-duty (greater than 50 horsepower) off-road vehicles to be used in the construction of the Project, including owned, leased and subcontractor vehicles, will meet CARB standards for NOx and particulate matter. • Contractors shall be responsible to ensure that all construction equipment is properly tuned and maintained. • Equipment operators shall be instructed to minimize equipment idling time to five (5) minutes. • Utilize existing power sources (e.g., power poles) or clean fuel generators rather than temporary power generators whenever possible. • Equipment used in grinding wood waste will require either state registration through the Portable Equipment Registration Program, or a stationary source permit and authority to construct through the TCAPCD. • Equipment used in the process of making asphalt such as sand and gravel screens or asphalt batch plants will require either state registration through the Portable Equipment Registration Program, or a stationary source permit and authority to construct through the TCAPCD. 			
AQ-2 –The City of Corning shall require the implementation of Standard Mitigation	Before and during	City, Developer,	

TABLE MMP-1			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
<p>Measures and feasible Best Available Mitigation Measures for all residential developments. The following measures constitute potentially suitable options:</p> <ul style="list-style-type: none"> • Orient residences and install landscaping that takes advantage of passive solar design principles. A principal component is to increase energy efficiency by 20 percent over California Title 24 minimum requirements. • Provide for pedestrian access between higher density developments and TRAX bus service stops. • Where feasible provide bus turnouts, passenger benches, and shelters. • Use energy-efficient lighting (includes controls) and process systems such as water heaters, furnaces and boiler units. • Utilize low-NOx hot water heaters. • Install solar water heaters for at least 25 percent of the residential units. • Utilize energy-efficient and automated controls for air conditioning. • Provide for synchronized traffic signals along streets affected by Project development as deemed necessary by the local transportation planning agency. • All new wood burning devices shall be EPA Phase II certified. • Contribute to traffic-flow improvements (e.g., right-of-way, capital improvements, etc.). • Install an electrical outlet at the front and back of all residential units for electrical yard equipment. 	<p>construction. During operations.</p>	<p>Contractor, and TCAPCD</p>	
<p>AQ-3 – The City of Corning, as part of their rezoning action, will prezone the area proposed for future annexation(s) so that not more than 1,230 residential dwelling units can be developed.</p>	<p>As part of rezoning approval action.</p>	<p>City</p>	
<p>AQ-4 – Sensitive Receptors within the City can be less than 500-feet from the nearest edge of I-5. Approval of structures associated with sensitive receptors closer than 500-feet could be permitted if a project proponent can demonstrate through air quality modeling or monitoring that locating such uses at a distance less than 500-feet does not result in health risks to sensitive receptors located greater than those at 500-feet.</p>	<p>As part of tentative tract map or use permit entitlement process.</p>	<p>City</p>	
IV. BIOLOGICAL RESOURCES			
<p>B-1 – A 50-foot set back from the riparian dripline of Jewett Creek or from the top of bank, whichever is greater is recommended to provide protection of Jewett Creek and its riparian corridor. If construction of storm drainage outlets or other work must occur within the Creek corridor, a botanical survey should be conducted in the spring to determine if the activity would affect any special status plants. If plants are present and would be affected, specific mitigation should be determined in consultation with DFG. Mitigation would likely consist of modifying the project to</p>	<p>Before construction.</p>	<p>City, CDFG, and Contractor</p>	

TABLE MMP-1			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
<p>avoid special status plant populations or removing and relocating the near surface soils following seed set.</p> <p>Furthermore, if installation of storm drain outlets or other work is required in the stream zone, earth-moving construction activities in or adjacent to the creek should be restricted to periods when the creek is dry, Best Management Practices should be implemented for erosion control, and storm water runoff should be pre-treated prior to release into Jewett Creek.</p> <p>Although in-water future project work is not proposed, indirect effects to special-status fish species such as the Chinook salmon and Central Valley steelhead in the Sacramento River during construction, could result if storm water runoff from project sites enters Jewett Creek and degrades spawning or rearing habitat downstream. However, by restricting earth-moving construction activities in or adjacent to Jewett Creek to dry periods, Best Management Practices implemented for erosion control, and pre-treatment of storm water runoff prior to its release, will result in no adverse effects to special-status fish species.</p> <p>Additional measures to protect species associated with the Jewett Creek corridor may be required by the Corps, DFG, and/or Regional Water Quality Control Board if the corridor is directly impacted by project activities. If a Corps permit is required, the Corps may require endangered species consultation with the National Marine Fisheries Service. The Corps would incorporate the conservation measures recommended by NMFS into its permit.</p>			
<p>B-2 – To the extent practicable, the discharge or dredged or fill material into “waters of the U.S.”, including wetlands, shall be avoided (this also includes waters not subject to Corps jurisdiction, but subject to RWQCB jurisdiction). This includes avoiding activities that would obstruct the flow of, or alter the bed, channel, or bank of any intermittent or ephemeral creeks. If complete avoidance is implemented, no further measures are necessary. If complete avoidance is not practicable, the following measures shall be implemented:</p> <ul style="list-style-type: none"> • Prior to any discharge of dredged or fill material into “waters of the U.S.”, including wetlands, authorization under a Nationwide Permit or Individual Permit shall be obtained from the Corps. For any features determined to not be subject to Corps jurisdiction during the verification process, authorization to discharge (or a waiver from regulation) shall be obtained from the RWQCB. For fill requiring a Corps permit, water quality certification shall be obtained from the RWQCB prior to discharge of dredged or fill material. 	As part of tentative tract map or use permit entitlement process. Before and during construction.	City, Developer, and Army Corps of Engineers	

TABLE MMP-1			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
<ul style="list-style-type: none"> • Prior to any activities that would obstruct the flow of, or alter the bed, channel, or bank of any intermittent or ephemeral creeks, notification of streambed alteration shall be submitted to the DFG; and, if required, a streambed alteration agreement shall be obtained. • Construction activities that will impact “waters of the U.S.” shall be conducted during the dry season to minimize erosion. • Appropriate sediment control measures to protect avoided “waters of the U.S.” shall be in place prior to the onset of construction and shall be monitored and maintained until construction activities have ceased. Temporary stockpiling of excavated or imported material shall occur only in approved construction staging areas. Excess excavated soil shall be used on site or disposed of at a regional landfill or other appropriate facility. Stockpiles that are to remain on the site through the wet season shall be protected to prevent erosion (e.g. silt fences, straw bales). • All pedestrian and vehicular entry into “waters of the U.S.”, including wetlands, to be avoided shall be prohibited during construction. • Loss of wetlands shall be compensated at a minimum of a 2:1 creation ratio (i.e. two acres created for each acre destroyed). This can be accomplished through purchase of appropriate credits at a Corps approved mitigation bank, appropriate payment into a Corps approved in-lieu fee fund, or on-site or off-site creation, monitoring, and maintenance (as approved by the Corps or RWQCB). • Loss of “other waters” shall be compensated through purchase of appropriate credits at an Corps approved mitigation bank, appropriate payment into an Corps approved in-lieu fee fund, or through placement of avoided waters and associated riparian buffers into a conservation easement or similar protective mechanism. The amount of avoided waters and riparian buffers to be permanently protected shall be sufficient to offset the impact and shall be determined by the Corps and the applicant during the permitting process. • Any monitoring, maintenance, and reporting required by the regulatory agencies (i.e. Corps, RWQCB, DFG) shall be implemented and completed. All measures contained in the permits or associated with agency approvals shall be implemented. 			
<p>B-3 – Conduct a USFWS protocol-level survey for the vernal pool fairy shrimp and vernal pool tadpole shrimp within suitable habitats occurring within the proposed project site, or assume the species are present. If the species are not detected during the protocol-level survey, no further measures or mitigation is required. If</p>	As part of the Corps permitting process.	Developer and Army Corps of Engineers	

TABLE MMP-1			
MITIGATION MONITORING TABLE			
MITIGATION	TIMING/ IMPLEMENTATION	AGENCY MONITORING/ CONSULTATION	VERIFICATION (DATE & INITIALS)
<p>either of the species is detected during protocol-level surveys or the presence of the species is assumed in-lieu of conducting surveys, and proposed activities will result in direct or indirect impacts to potential habitat, the following measures shall be implemented:</p> <ul style="list-style-type: none"> • Formal consultation with the USFWS shall be initiated under Section 7 or Section 10 of the ESA, as appropriate. No direct or indirect impacts to suitable habitat for these species shall occur until Incidental Take authorization has been obtained from the USFWS. • For every acre of habitat directly or indirectly affected, at least two vernal pool preservation credits shall be dedicated within a USFWS-approved ecosystem preservation bank. With USFWS approval, appropriate payment into an in-lieu fee fund or on-site preservation may be used to satisfy this measure. • For every acre of habitat directly affected, at least one vernal pool creation credit will be dedicated within a USFWS-approved habitat mitigation bank. With USFWS approval, appropriate payment into an in-lieu fee fund, on-site creation, or off-site creation may be used to satisfy this measure. 			
V. CULTURAL RESOURCES			
<p>CR-1 – Should artifacts or unusual amounts of stone, or shell be uncovered during construction activities, activities shall cease in the area until a qualified archaeologist can evaluate the materials. The archaeologist shall examine the findings, assess their significance, and offer recommendations for procedures deemed appropriate to either further investigate or mitigate adverse impacts to those cultural resources that have been encountered (e.g., excavate the significant resource). These additional measures shall be implemented.</p>	During construction.	City and Contractor	
<p>CR-2 – If human bone or bones of unknown origin is found during construction, all work within 50 feet of the find shall stop until a qualified archaeologist can make an assessment of the discovery and recommend/implement mitigation measures as necessary. The archaeologist may recommend contacting the County Coroner. If the remains are determined to be Native American, the Coroner shall notify the Native American Heritage Commission who shall notify the person it believes to be the most likely descendant. The most likely descendant shall work with the Agency to develop a program for reinterment of the human remains and any associated artifacts. No additional work shall take place within the immediate vicinity of the find until the identified appropriate actions have been completed.</p>	During construction.	City and Contractor	
VI. GEOLOGY AND SOILS			
<p>G-1 – Implementation of Best Management Practices for erosion control of all disturbed areas to prevent eroded soil from entering Jewett Creek, Burch Creek and</p>	As part of tentative tract map	City, RWQCB,	

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<p>other major drainages shall be implemented. Measures include, but are not limited to the following:</p> <ul style="list-style-type: none"> • Ground disturbing work for site development shall be limited to the dry season to the greatest feasible extent, and all erodible surfaces shall be protected by paving, mulching or landscaping, as provided in the erosion control plan (required) prior to the advent of the rainy season (September to March). Berms shall be provided around construction sites to contain sediment. If construction operations occur during rainy periods, use of erosion control measures, such as straw-bale dikes, gravel filters, stabilized construction entrances and sediment traps shall be required. No areas shall be left exposed during winter. • Surface soils may be subject to erosion when excavated and exposed to weathering. Erosion and sediment control measures shall be implemented during and after construction to conform to acceptable erosion control and City grading standards. The erosion control plan shall include revegetation of denuded areas. • Drainage facilities shall be lined as necessary to prevent erosion. A detailed geotechnical investigation shall be performed to determine specific site characteristics prior to construction of the roads and other improvements. A civil engineer shall be involved during the construction phase(s) to assure that recommendations are implemented or modified as necessary. • To minimize dust/grading impacts during construction; no grading activity shall be conducted when sustained wind speeds exceed 25 miles per hour. Construction activities may occur during sustained wind speeds between 10 and 25 miles per hour provided dust control measures are increased and dust and erosion impacts are controlled to the satisfaction of City inspection staff. • In areas where construction activities result in soil exposure, prompt replanting with native, compatible, drought-resistant vegetation shall be required. • Native vegetation shall be left undisturbed where feasible. 	<p>or use permit entitlement process. Before and during construction.</p>	<p>Developer, and Contractor</p>	
VII. GREENHOUSE GAS EMISSIONS			
<p>GGE-1 – The following measures will be implemented where practicable. Although no emissions reduction was taken for the purposes of this Initial Study, the emission reduction measures will likely result in decreased greenhouse gas emissions:</p> <ul style="list-style-type: none"> • All construction equipment shall comply with applicable California Air Resources Board requirements to ensure adequate construction dust and fugitive dust control. With respect to the use of diesel equipment, all construction contracts shall comply with California Air Toxic Control measures related to off-road, on-road, stationary, portable and other applicable category of such equipment. 	<p>As part of tentative tract map or use permit entitlement process. Before and during construction.</p>	<p>City, Developer, Contractor, and TCAPCD</p>	

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<ul style="list-style-type: none"> • All applicable construction equipment shall be state registered through Portable Equipment Registration Program or shall apply for a stationary source permit from the TCAPCD. • Pedestrian walkways, bikeways, trails should be provided, to reduce reliance on the automobile for short trips. • Parks and school recreational facilities should be located within walking distance of residences, to reduce reliance on automobile trips. • In development areas, trees, shrubs, and other community landscaping will be planted. Trees and plants sequester carbon dioxide. • Bicycle parking facilities should be provided in existing and proposed commercial areas and parks. • The parking lots in multi-family housing developments should be shaded with native, drought resistant trees to reduce a heat island effect. • Passive solar landscape design elements should be considered during landscape design. For example, deciduous trees planted on the south aspect will provide shade in the summer and allow for sunlight to shine through the branches in the winter. Evergreen trees on the north and west sides will afford protection from the summer sun. • Where irrigation is necessary, low-volume and directed sprinkler heads and/or drip irrigation should be used to save water and reduce energy demand associated with potable water conveyance. • Tree selection in the landscape areas should consider species that are drought resistant and that have low emissions and high carbon sequestration potential. • Plants with similar water needs should be grouped together, to increase efficiency of irrigation. • Outdoor lighting fixtures should have dimming features to allow for minimum illumination levels needed for safety and security. Motion sensor lighting may be installed to heighten security, while also serving to reduce unnecessary lighting. • Sustainable building materials should be considered as part of building design and construction. • Colors of exterior building materials and coatings should consider a balance between reflectivity and light absorption. Lighter colors with higher reflective values reduce energy consumption by absorbing less heat and reducing reliance on air conditioning systems. • Where feasible, windows and/or skylights in residences should be positioned in such a manner that the need for artificial light is reduced. 			

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<ul style="list-style-type: none"> • Where feasible, windows in residences should be positioned in such a way that cross-ventilation will occur to reduce reliance on air conditioning systems. • Energy-reducing programmable thermostats should be installed in residential homes. • Water-saving appliances and water conserving features should be used, including low-flow toilets, water-saving showerheads, and dishwashers. At a minimum, requirements of the Energy Policy Act of 1992 for fixture performance will be met. • Participation in mandatory recycling programs, if implemented by the City, should be required of residents. • The City should evaluate and consider exceeding Title 24 building standards for the purpose of increased energy efficiency including the construction of LEED certified residential and non-residential buildings. 			
XII. NOISE			
<p>N-1 – The following more specific mitigations will serve to reduce impacts to less than significant levels.</p> <ul style="list-style-type: none"> • Sound walls or earthen berms shall be utilized along the roadways, adjacent to future residential uses. Residences adjacent to Solano Avenue and 99W normally will require barriers approximately six-feet in height. • Residences adjacent to I-5 could be exposed to traffic noise levels in excess of 75 dB Ldn based on evaluations undertaken for other projects in Tehama County. Future development of the parcels proposed for rezoning adjacent to I-5 will be required to comply with the exterior noise level standards which range between 60 dB and 65 dB Ldn. The standard is applied at the outdoor activity area. For single family residential uses, the standard would be applied at a patio or rear yard. For multi-family uses, the standard can be applied at individual patios or a common outdoor area such as a court yard or club house. Compliance with the outdoor noise level standards can be accomplished through the use of barriers, shielding by buildings, the use of setbacks, site design, or a combination of each. Preliminary barrier calculations based on other developments within Tehama County indicate that barrier heights could range between 10 feet in height to achieve the upper end 65 dB Ldn exterior noise level standard, and 14 feet in height to achieve the more restrictive exterior noise level standard of 60 dB Ldn. The combination of mitigation measures required to comply with the City exterior noise level standard will be determined when ensuing tentative subdivision maps or use permits illustrating lot locations and configurations and grading are submitted for approvals. 	As part of tentative tract map or use permit entitlement process. Before and during construction.	City, Developer, Contractor, and TCAPCD	

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<ul style="list-style-type: none"> • If a barrier is used as a form of mitigation, the final barrier design shall be completed that recommends the size, location and type of barriers needed, if any, to ensure consistency with the Noise Element and shall be included as a condition for approval of tentative maps or use permits. • Future residential development will be required to comply with an exterior noise level standard of 65 dB Ldn. Compliance with the outdoor noise level standards can be accomplished through the use of barriers, shielding by buildings, the use of setbacks, site design, or a combination of each. The combination of mitigation measures required to comply with the City's exterior noise level standard will be determined when tentative subdivision maps or use permits illustrating lot and/or building locations and configurations, final design and grading are submitted for entitlements. If a barrier is used as a form of mitigation, the final barrier design shall be completed that recommends the size, location and type of barriers needed, if any, to ensure consistency with the Tehama City Noise Element and shall be included as a condition for approval of the tentative maps or use permits. • All residential uses are required to comply with the 45 dB Ldn interior noise level standard. A detailed analysis of interior noise levels shall be conducted when tentative subdivision maps are available for each residential area located adjacent to Solano Avenue, 99W, I-5 and the CFNR Railroad line and required as a condition of tentative map or use permit approvals. Improvements to building facades could include Sound Transmission Class rated windows and improved façade construction. 			
<p>N-2 – Construction activities shall be limited to the hours of 7 a.m. to 8 p.m. on the weekdays and from 9 a.m. to 5 p.m. on weekends and holidays unless an exemption is received from the City to cover special circumstances. In addition, all equipment shall be fitted with factory equipped mufflers, and in good working order.</p>	<p>During construction.</p>	<p>City and Contractor</p>	

