

the Glenn County portion of the Colusa Subbasin and consists of nine member agencies, including the City of Willows (GGA acreage 286,154). According to Department of Water Resources (DWR) Bulletin 118 (DWR, 2006), estimates of groundwater extraction for agricultural, municipal and industrial, and environmental wetland uses are 310,000, 14,000 and 22,000 acre-feet respectively. Deep percolation from applied water is estimated to be 64,000 acre-feet. The storage capacity of the subbasin was estimated based on estimates of specific yield for the Sacramento Valley. 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 7.1 percent. The estimated storage capacity to a depth of 200 feet is approximately 13,025,887 acre-feet.

The primary surface water bodies through, or from, which imported waters are delivered to entities within the Subbasin include the Sacramento River and Stony Creek, with the Tehama-Colusa Canal and the Glenn Colusa Canal being the primary conveyances of Sacramento River water. The Glenn-Colusa Canal system is situated east of the Tehama-Colusa Canal and west of the Sacramento River. The Glenn-Colusa Canal originates on the Sacramento River north of the Subbasin and extends south of Williams, Colusa County, where it flows into the local canal system. The Glenn-Colusa Canal is operated by the Glenn-Colusa Irrigation District (GCID), located in Willows. GCID covers approximately 175,000 acres; of which, approximately 140,000 acres are farmed, making it the largest irrigation district in the Sacramento Valley (GCID, 2017). In addition to serving agricultural lands, GCID services approximately 1,200 acres of private habitat land and 20,000 acres of protected federal wildlife land. The main canal is approximately 65 miles long and conveys water into a complex system of nearly 1,000 miles of canals, laterals, and drains.

The primary sources of groundwater recharge in the Subbasin are deep percolation – the movement of water from land surface to the aquifer – of precipitation and applied water. Other volumetrically less important sources include deep percolation resulting from domestic and municipal uses. Much of the Subbasin is devoted to agriculture; many of the agricultural fields are irrigated with surface water supplies from the Tehama-Colusa Canal, the Glenn-Colusa Canal, and other irrigation water supply systems, which provide Sacramento River water from outside of the subbasin boundaries. Water applied to agricultural lands has a significant contribution to groundwater recharge.

The current groundwater storage volume within the Subbasin, above the crystalline basement rocks and base of freshwater, is estimated to be between about 26 million acre-feet (maf) and 140 maf based on an analysis using contouring of Spring 2020 groundwater levels, an average saturated thickness, and an assumed average specific yield range of 0.034 to 0.185, taken from Olmsted and Davis (1961). This range in groundwater storage volume reported in this GSP is low due the lack of groundwater elevation data within the upland areas of the subbasin and uncertainty regarding the depth to the base of freshwater. Recent groundwater modeling conducted to support development of this GSP suggests average specific yield values for the full saturated thickness in the subbasin (i.e., from the regional water table to the base of fresh water) fit within the range provided by Olmsted and Davis (1961).

Prior to the groundwater basin boundary modification process concluded by DWR in 2019, DWR Bulletin 118 estimated the aquifer storage capacity within the upper 200 feet of the Subbasin to be

approximately 13 maf (DWR, 2006a). The Subbasin at the time was bounded by Stony Creek to the north, Sacramento River to the east, Cache Creek to the south, and the uplands of Dunnigan Hills and the foothills of the Coast Ranges to the west. Currently, the Subbasin excludes the areas south of the Colusa-Yolo County boundary and includes a portion of the former West Butte Subbasin east of the Sacramento River within Colusa County. Taking into account the area of the current Subbasin extent and a specific yield estimate of 0.071 within the unconfined zone, as reported in Bulletin 118 (2006a), approximately 10.3 maf of storage capacity is estimated within the upper 200 feet of the current subbasin extent.

The average annual change in storage was -28 thousand acre-feet per year (taf/yr) over the historical water budget period of 1990 to 2015. This indicates that, on average, more groundwater has left the Subbasin than entered, resulting in an average net reduction in groundwater stored in the Subbasin. On average, the Subbasin's storage volume is influenced more by dry years than wet years. This is likely due to both a greater reliance on groundwater supply during dry years when surface water is less readily available and the relatively slow nature of deep percolation to recharge the groundwater system during wet years. Most of the groundwater inflows and outflows within the Subbasin are exchanged directly with the land and surface water system overlying the Subbasin groundwater system.

Domestic water service in the City of Willows, and the adjacent unincorporated area, is provided by the California Water Service Company (Cal Water), Willows District (District). The District operates seven groundwater wells, two storage tanks, and 36 miles of pipeline. From 2010 to 2015, the District delivered an average of 1.2 mg of water per day to more than 2,342 service connections. The 2020 Urban Water Management Plan prepared by Cal Water, contains many of the elements required by SGMA and thus already serves as a road map toward the implementation of SGMA for the District. Some of these components include actions to develop additional water supplies to maintain supply reliability, water quality, and recycled water. The City of Willows Water Department owns and operates a small water system just south of the District boundaries, south of Road 53, which consists of one well and three service connections.

According to 2020 Urban Water Management Plan, groundwater is the sole source of water supply for the Willows District. Cal Water does not impound or divert surface water as a means to meet demands in the Willows District. There are no plans to divert stormwater for beneficial uses in the Willows District. The District has a total of seven wells (four active, three standby) located within the District service area boundaries. There are two surface storage structures, enabling the groundwater wells to pump to storage during non-peak demand periods and provide peak day demand. The District has sufficient production capacity to supply all of the District's current annual average day and maximum day demand.

Table 3.9-3 lists the amount of groundwater pumped by Cal Water over the past five years. The available groundwater supply has been sufficient to meet all of the District's demands in the past five years and all prior years.

3.9 HYDROLOGY AND WATER QUALITY

TABLE 3.9-3: GROUNDWATER VOLUME PUMPED FOR WILLOWS

Basin Name	2016	2017	2018	2019	2020
Colusa Subbasin	1,037	1,154	1,152	1,147	1,316
<p><i>NOTES: (a) Volumes are in units of AF. (b) The Colusa Subbasin is not adjudicated, and the projected groundwater supply volumes are not intended to and do not determine, limit or represent Cal Water's water rights or maximum pumping volumes. Any determination of Cal Water's water rights, as an overlying owner, appropriator, municipal water purveyor or otherwise, is beyond the scope of the UWMP statutes and regulations</i></p>					

SOURCE: 2020 URBAN WATER MANAGEMENT PLAN.

Table 3.9-4 below illustrates Colusa Subbasin's projected water supplies for future years from 2025 to 2045.

TABLE 3.9-4: WATER SUPPLIES – PROJECTED FOR WILLOWS

Basin Name	2025	2030	2035	2040	2045
Colusa Subbasin	1,527	1,617	1,615	1,876	1,881
<p><i>NOTES: (a) Volumes are in units of AF. (b) The Colusa Subbasin is not adjudicated, and the projected groundwater supply volumes are not intended to and do not determine, limit or represent Cal Water's water rights or maximum pumping volumes. Any determination of Cal Water's water rights, as an overlying owner, appropriator, municipal water purveyor or otherwise, is beyond the scope of the UWMP statutes and regulations</i></p>					

SOURCE: 2020 URBAN WATER MANAGEMENT PLAN.

As Shown in Table 3.9-4 and further discussed in Chapter 3.15, Utilities and Service Systems, the 2020 UWMP documents current and projects future water demands and supplies through 2045. Water supplies to meet future demands through groundwater pumping is identified to meet the City's needs through 2045.

As described in the UWMP, average water use per service is adjusted over the forecast period to account for anticipated reductions in water use due to the ongoing effects of appliance standards and plumbing codes, the District's conservation and customer assistance programs, and growth in the inflation-adjusted cost of water service and household income. These factors, in combination, are projected to somewhat attenuate the projected increase in water use associated with proposed new development. Despite the UWMP anticipating a 33 percent projected increase in service area population between 2000 and 2045, water use in 2045 is projected to be 4 percent less than total water use in 2000. The available water supply meets or exceeds the estimated buildout water demands. Thus, the City will have adequate water supply to serve the buildout of the proposed general plan land uses.

Groundwater levels in the Colusa Subbasin have declined year-over-year during below average, dry or critically dry years due to reduced net recharge. For example, during the single dry water year of 2013, groundwater levels declined in all four wells that had data spanning this period, and similarly during the multiple dry water year period from 1987 through 1991 groundwater levels declined in all wells with data during that period.

On the other hand, groundwater levels have increased from previous lows during above normal and wet years due to relatively higher net recharge. For example, in water year 1986 (which represents normal water year conditions), groundwater levels increased in the two wells that had data spanning that year. This pattern of water level increases during climatically wet periods (e.g., as occurred during the multi-year wet periods from 1982-1984 and 1995-1998, and single wet years such as 2006 and 2011) indicates that the Basin is able to recover from dry periods and that Basin-wide pumping can increase in times of need to meet increased demands without detriment to the long-term sustainability of the groundwater system.

An average rate of change in groundwater level of approximately -0.4 ft/yr has been observed historically in Cal Water supply wells serving the Willows District (i.e., approximately -10 feet of decline over 24 years from 1990 through 2015 to average depths of approximately 35 feet below ground surface), changes that have been manageable to date, even considering the recent, historic drought. Well depth data from DWR indicate that the minimum public supply well depth in Public Land Survey System (PLSS) sections in and around the Willows District is 250 feet, suggesting that these public supply wells are not at risk of dewatering, even if current trends continue.

The majority of groundwater pumping in the Colusa Subbasin is for agricultural use. From a regional and Basin-wide standpoint, Willows District pumping is only a small fraction of total groundwater pumping. Average annual groundwater pumping from 2000 through 2015 in the Glenn County portion of the Colusa Subbasin totaled approximately 220,064 AFY, including approximately 213,150 AFY for irrigated agriculture and 6,914 AFY for Municipal & Industrial (M&I) use. These data show that M&I pumping accounted for approximately three percent of total pumping in the Basin. It is therefore likely that management of agricultural groundwater use, rather than M&I use, will be a much larger determining factor in achieving and maintaining groundwater sustainability in the Colusa Subbasin in the future.

The UWMP indicates that the estimated pumping rates by the Willows District are not anticipated to create significant and unreasonable rates of chronic groundwater level declines in the Colusa Subbasin especially given that M&I pumping remains such a small fraction of total Basin pumping and that projected District demands are within historical levels of pumping. Further, based on the analysis presented herein, the Colusa Subbasin groundwater supply is estimated to be sufficient to support the District's projected demand over the next 20 years in normal, single dry, and multiple dry year hydrologic conditions without causing significant and unreasonable effects on groundwater levels and storage. Thus, available supply in future years is considered to be equal to the projected demands.

Subsequent development projects under the General Plan, such as residential, commercial, industrial, and roadway projects would result in new impervious surfaces and could reduce rainwater infiltration and groundwater recharge. The amount of new pavement and impervious surfaces, and the extent to which they affect infiltration, depends on the site-specific features and soil types of a given project site. Projects located in developed areas would have less of an impact than projects converting open lands and spaces.

Given that implementation and future buildout of the proposed General Plan would not appreciably add to the volume of impervious surfaces in Willows or the Colusa Subbasin Recharge Area, when compared to the overall size of the regional groundwater basin recharge area, and that there are adequate water supplies (including groundwater) to serve the projected buildout demand of the General Plan, this potential impact would be **less than significant**.

The General Plan includes policies that support water conservation, the use of permeable surfaces and coordination with local agencies and water districts when planning for adequate capacity to accommodate future growth. Specifically General Plan Action COS-10c: calls on the City to participate in and collaborate with Glenn County, and other regional groundwater management agencies to support and promote Groundwater Sustainability Plans and implementation strategies for the groundwater basin.

The General Plan and development codes are consistent with local Groundwater Management Plans and promote collaboration and conservation of resources throughout the Planning Area that benefit and promote groundwater resources. Implementation of the following General Plan policies would further ensure that the General Plan would have a **less than significant** impact relative to this topic.

GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 10.1: Protect floodways and other areas with high groundwater water recharge capability.

COS 10.4: Promote water conservation among water users.

COS 10.5: Support and promote the use of drought-tolerant and regionally native plants in landscaping.

COS 10.7: Monitor groundwater extraction activities and ensure the health of the groundwater basin.

PUBLIC SAFETY ELEMENT POLICIES

SA 1.6: Prevent land subsidence and maintain adequate groundwater supplies.

SA 2.6: Encourage and accommodate multipurpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of drainages, creeks, and detention ponds. Where appropriate and feasible, encourage the use of water detention facilities for use as groundwater recharge facilities.

CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

COS-10b: Collaborate with water suppliers and wastewater treatment plant operators to increase the availability of treated or recycled water for agricultural purposes.

COS-10c: Participate in and collaborate with Glenn County, and other regional groundwater management agencies to support and promote Groundwater Sustainability Plans and implementation strategies for the groundwater basin.

PUBLIC SAFETY ELEMENT ACTIONS

SA-1e: Monitor withdrawal of groundwater, oil, and gas, maintain land elevation records, and regulate overdraft to prevent subsidence.

Impact 3.9-3: General Plan implementation could alter the existing drainage pattern in a manner which would result in substantial erosion, siltation, flooding, impeded flows, or polluted runoff (Less than Significant)

General Plan implementation has the potential to impact the Planning Area's storm drainage system. The potential impacts would be primarily derived from development in what are now underdeveloped and/or underutilized areas, which could affect the existing drainage patterns.

The City is within the jurisdictional boundary of the CVRWQCB. Under the CVRWQCB NPDES permit system, all existing and future municipal and industrial discharges to surface water within the city would be subject to regulation. NPDES permits are required for operators of municipal separate storm sewer systems, construction projects, and industrial facilities. These permits contain limits on the amount of pollutants that can be contained in each facility's discharge.

Construction activities are regulated by the NPDES General Construction Storm Water Permit. Compliance with the storm water permit during construction activities requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP) that contains BMPs to control the discharge of pollutants, including sediment, into local surface water drainages.

In addition to complying with the NPDES programs, the General Plan contains policies and actions to reduce impacts associated with stormwater and drainage including policies to maintain sufficient levels of storm drainage service, improvements to flood control facilities, and other best practices in order to protect the community from flood hazards, and minimize the discharge of materials into the storm drain system that are toxic, or which could obstruct flows. Additionally, the General Plan policies encourage that stormwater be directed towards permeable surfaces, incorporate stormwater capture, and promote BMPs and Low Impact Development measures (LID) to treat stormwater.

Individual future projects allowed under the General Plan would create new impervious surfaces. This may result in an incremental reduction in the amount of natural soil surfaces available for infiltration of rainfall and runoff, potentially generating additional runoff during storm events. In addition, the increase in impervious surfaces, along with the increase in surface water runoff, could increase the non-point source discharge of pollutants. Anticipated runoff contaminants include sediment, pesticides, oil and grease, nutrients, metals, bacteria, and trash. Contributions of these contaminants to stormwater and non-stormwater runoff would degrade the quality of receiving waters. During the dry season, vehicles and other urban activities release contaminants onto the impervious surfaces, where they can accumulate until the first storm event. During this initial storm event, or first flush, the concentrated pollutants would be transported via runoff to stormwater drainage systems. Contaminated runoff waters could flow into the stormwater drainage systems that discharge into rivers, agricultural ditches, sloughs, and channels, and ultimately could degrade the water quality of any of these water bodies.

3.9 HYDROLOGY AND WATER QUALITY

The General Plan sets policies and actions for build-out of the City, but it does not envision or authorize any specific development project. Because of this, the site-specific details of potential future development projects are currently unknown and analysis of potential impacts of such projects is not feasible and would be speculative. As previously discussed in the Regulatory Setting section of this chapter, future project applicants would be required to obtain permits from the Army Corps of Engineers and the Department of Fish and Wildlife if any work is performed within a waterway. Each future development project must also include detailed project specific floodplain and drainage studies consistent with the City's Storm Drainage Design Standards that assess the drainage characteristics and flood risks so that an appropriate improvements to control storm water runoff, both during and after construction. Construction of storm drainage improvements would occur as part of an overall development or infrastructure project, and is considered in the environmental impacts associated with project construction and implementation as addressed throughout this EIR.

Provision of stormwater detention facilities as needed would reduce runoff rates and peak flows. The City has developed the General Plan to include policies and actions that, when implemented, will reduce flooding from new development, reduce storm water pollution from new development, and protect and enhance natural storm drainage and water quality features, which will in turn reduce water quality impacts. As described previously, existing regulatory requirements including NPDES and Waste Discharge permits from the RWQCB and implementation of BMPs manage quality. Through implementation of the General Plan policies and actions listed below, implementation of the Willows Municipal Code, and Design and Construction Standards requirements identified above, and compliance with mandatory Federal and State regulations would ensure that impacts related to increased flooding or water quality impacts associated with increased runoff would be **less than significant**.

GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

LAND USE ELEMENT POLICIES

LU 2.9: Ensure that the impacts from flooding are adequately analyzed when considering development in flood prone areas. Conservation and Open Space Element Policies

COS 9.9: Work with agricultural landowners to improve practices that have resulted in adverse impacts to adjacent properties such as site drainage and flood control measures.

CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

COS-10a: Continue to identify stormwater and drainage facilities in need of repair and address these needs through the CIP process. As feasible seek to incorporate BMPs and LID techniques into repairs and upgrades that promote water quality objectives.

PUBLIC SAFETY ELEMENT POLICIES

SA 2.2: Require all new development projects to demonstrate how storm water runoff will be detained or retained on-site, treated, and/or conveyed to the nearest drainage facility as part of the

development review process. Project applicants shall demonstrate that project implementation would not result in increases in the peak flow runoff to adjacent lands or drainage facilities that would exceed the design capacity of the drainage facility or result in an increased potential for off-site flooding.

SA 2.3: Ensure that construction activities and new development projects will not result in adverse impacts to existing properties and flood control and drainage structures.

SA 2.5: Require evaluation of potential flood hazards prior to approval of development projects to determine whether the proposed development is reasonably safe from flooding and consistent with California Department of Water Resources Urban Level of Flood Protection Criteria (ULOP). The City shall not approve the execution of a development agreement, a tentative map, or a parcel map for which a tentative map is not required, or a discretionary permit or other discretionary entitlement that would result in the construction of a new building, or construction that would result in an increase in allowed occupancy for an existing building, or issuance of a ministerial permit that would result in the construction of a new residence for property that is located within a 200-year flood hazard zone, unless the adequacy of flood protection as described in Government Code §65865.5(a), 65962(a), or 66474.5(a), has been demonstrated.

SA 2.8: Ensure that any development activity that requires a grading permit does not impact adjacent properties, local creeks and storm drainage systems by designing and building the site to drain properly to minimize drainage issues and erosion.

SA 2.9: Ensure that new development or and infrastructure improvements does not compound the potential for flooding.

SA 2.11: Ensure that the impacts of potential flooding are adequately analyzed when considering areas for future urban expansion.

LAND USE ELEMENT ACTIONS

LU-2c: Implement the policies and actions included in the Safety Element to protect life and property from impacts associated with flooding.

PUBLIC SAFETY ELEMENT ACTIONS

SA-2a: As part of the development review process require new development projects to prepare hydraulic and storm drainage studies as necessary to define the net increase in storm water run-off resulting from construction and require mitigation to reduce impacts. Drainage and grading plans shall identify BMP protections and include standards established and recommended by the City that shall be incorporated into development.

Impact 3.9-4: General Plan implementation would not release pollutants due to project inundation by flood hazard, tsunami, or seiche (Less than Significant)

FLOOD

The Planning Area is subject to flooding problems along the natural creeks, and drainages in the Planning Area. The FEMA FIRM for the Planning Area is shown on Figure 3.9-2. As shown in Figure 3.9-2, the City of Willows contains areas within the 1% annual chance flood hazard zone (100-year flood), the 0.2% annual chance flood hazard zone (500-year flood), and areas of minimal flood hazard. The major source of flooding is Glenn-Colusa Canal. Local drainage systems may also contribute to flood risk, but are not evaluated or mapped by FEMA. In addition, portions of the City may be at risk of inundation from upstream dam failure, with very little warning time. Future flooding trends may also be influenced by changes in the frequency and magnitude of precipitation and storm surge due to climate change.

The General Plan would allow development and improvement projects that would involve some land clearing, grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. As required by the CWA, each subsequent development project or improvement project will require an approved SWPPP that includes best management practices for grading and preservation of topsoil. SWPPPs are designed to control storm water quality degradation to the extent practicable using best management practices during and after construction.

The City is a participant in the National Flood Insurance Program (NFIP). The NFIP provides property owners and renters with federally backed flood insurance, reduces flood damage through a mandatory local floodplain management ordinance, and identifies and maps flood hazards. The NFIP requires the City to maintain a floodplain management ordinance based upon current FEMA Flood Insurance Rate Maps (FIRMs). The City's meets this requirement through the implementation of Floodplain Management Regulations specified in Chapter 15.65 of the Willows Municipal Code. The General Plan would allow development and improvement projects that would involve some land clearing, grading, and other ground-disturbing activities that could temporarily increase soil erosion rates during and shortly after project construction. As required by the Clean Water Act, each subsequent development project or improvement project will require an approved Storm Water Pollution Prevention Plan (SWPPP) that includes best management practices for grading and preservation of topsoil. SWPPPs are designed to control storm water quality degradation to the extent practicable using best management practices during and after construction.

In addition to complying with the NPDES programs and stormwater requirements, the General Plan contains policies to reduce impacts associated with stormwater and drainage including policies to maintain sufficient levels of storm drainage service, improvements to flood control facilities and channel segments, and other best practices in order to protect the community from flood hazards and minimize the discharge of materials into the storm drain system that are toxic. The implementation of the General Plan would result in a **less than significant impact** relative to this topic.

TSUNAMI AND SEICHES

Tsunamis and seiches are standing waves that occur in the ocean or relatively large, enclosed bodies of water that can follow seismic, landslide, and other events from local sources (California, Oregon, Washington coast) or distant sources (Pacific Rim, South American Coast, Alaska/Canadian coast).

The Department of Conservation, California Emergency Management Agency, and California Geological Survey (CGS) prepare Tsunami Inundation Maps to note tsunami hazards areas throughout California. According to CGS's Tsunami Inundation Maps, there are no tsunami inundation areas for emergency planning in the nearby vicinity of the Planning Area.

Seiches are typically caused when strong winds and rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the wind stops, the water rebounds to the other side of the enclosed area. The water then continues to oscillate back and forth for hours or even days. In a similar fashion, earthquakes, tsunamis, or severe storm fronts may also cause seiches along ocean shelves and ocean harbors, or other bodies large of water. Any body of water may experience limited oscillation during storm events or following seismic events, however oscillation in small bodies of water is generally limited. In smaller water bodies seiches may have the potential to damage or overtop dams. Generally, in lakes the threat of large-scale damage from seiches comes from downstream flooding that would be caused by large volumes of water overtopping a dam or reservoir.

As shown on Figure 3.9-3, the Black Butte Dam Inundation Area is the only dam inundation area that could impact the Planning Area. A portion of northeast Willow would be subject to inundation from the Black Butte Dam. The Black Butte Dam does not have a history of dam failure; however, it is identified as having the potential to inundate habitable portions of the Planning Area in the unlikely event of dam failure.

Section 8589.5 of the California Government Code requires local jurisdictions to adopt emergency procedures for the evacuation of populated inundation areas identified by dam owners. The local Office of Emergency Services has prepared a Dam Failure Plan. This plan includes a description of dams, direction of floodwaters, responsibilities of local jurisdictions, and evacuation plans. As such, the City is not at significant risk from a dam failure. In addition, limited isolated damage to adjacent and down-slope structures has been observed from seiches occurring in swimming pools and in small shallow lakes and ponds. Man-made lakes within the Planning Area are shallow with limited surface areas, and would not generate devastating seiches. The City of Willows is not within a tsunami hazard area and would not be subject to substantial impacts from seiche events. This is a **less than significant** impact.

GENERAL PLAN POLICIES AND IMPLEMENTATION ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

LAND USE ELEMENT POLICIES

LU-2.9: Ensure that the impacts from flooding are adequately analyzed when considering development in flood prone areas.

3.9 HYDROLOGY AND WATER QUALITY

CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 9.9: Work with agricultural landowners to improve practices that have resulted in adverse impacts to adjacent properties such as site drainage and flood control measures.

COS 10.2: Require discretionary projects, as well as new flood control and stormwater conveyance projects, to integrate best management practices (BMPs) and natural features to the greatest extent feasible, while ensuring that these features adequately convey and control stormwater to protect human health, safety, and welfare.

PUBLIC SAFETY ELEMENT POLICIES

SA 2.1: Support and participate in planning efforts undertaken at the local, regional, State, and Federal levels to improve flood management facilities and dam safety.

SA 2.3: Ensure that construction activities and new development projects will not result in adverse impacts to existing properties and flood control and drainage structures.

SA 2.4: Unless otherwise mitigated, require new structures to be located outside of the 100-year floodplain. All new development within an identified Flood Hazard Area shall be built according to Federal Emergency Management Agency standards.

SA 2.5: Require evaluation of potential flood hazards prior to approval of development projects to determine whether the proposed development is reasonably safe from flooding and consistent with California Department of Water Resources Urban Level of Flood Protection Criteria (ULOP). The City shall not approve the execution of a development agreement, a tentative map, or a parcel map for which a tentative map is not required, or a discretionary permit or other discretionary entitlement that would result in the construction of a new building, or construction that would result in an increase in allowed occupancy for an existing building, or issuance of a ministerial permit that would result in the construction of a new residence for property that is located within a 200-year flood hazard zone, unless the adequacy of flood protection as described in Government Code §65865.5(a), 65962(a), or 66474.5(a), has been demonstrated.

SA 2.6: Encourage and accommodate multipurpose flood control projects that incorporate recreation, resource conservation, preservation of natural riparian habitat, and scenic values of drainages, creeks, and detention ponds. Where appropriate and feasible, encourage the use of water detention facilities for use as groundwater recharge facilities.

SA 2.7: Encourage flood control measures that respect natural drainage features, vegetation, and natural waterways, while still providing for adequate flood control and protection.

SA 2.10: Maintain and periodically update, City flood safety plans, floodplain management ordinances, zoning ordinance, building codes and other related sections of the Municipal Code to reflect Safety Element goals, policies and standards, applicable Federal and State law, and National Flood Insurance Program requirements.

SA 2.11: Ensure that the impacts of potential flooding are adequately analyzed when considering areas for future urban expansion.

SA 2.12: Update flood hazard maps as necessary to reflect impacts from climate change in terms of long - term flood safety and long - term flood event probabilities.

LAND USE ELEMENT ACTIONS

LU-2d: When updated flood plain maps are prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources (DWR), review the Land Use Map to identify any potential safety impacts associated with residential land uses located within flood zones.

LU-2g: As part of project review, ensure that structures are reviewed for potential flood impacts. In areas that are subject to 100-year flood events, provide adequate protection in accordance with FEMA flood plain development standards.

LU-7a: Review all development proposals, planning projects, and infrastructure projects to ensure that potential adverse environmental impacts to disadvantaged communities, such as exposure to pollutants, including toxic air contaminants, flood risk, and unacceptable levels of noise and vibration are reduced impacts to the greatest extent feasible.

PUBLIC SAFETY ELEMENT ACTIONS

SA-2b: Continue to participate in the National Flood Insurance Program (NFIP), and consider future participation in the NFIP Community Rating System (CRS).

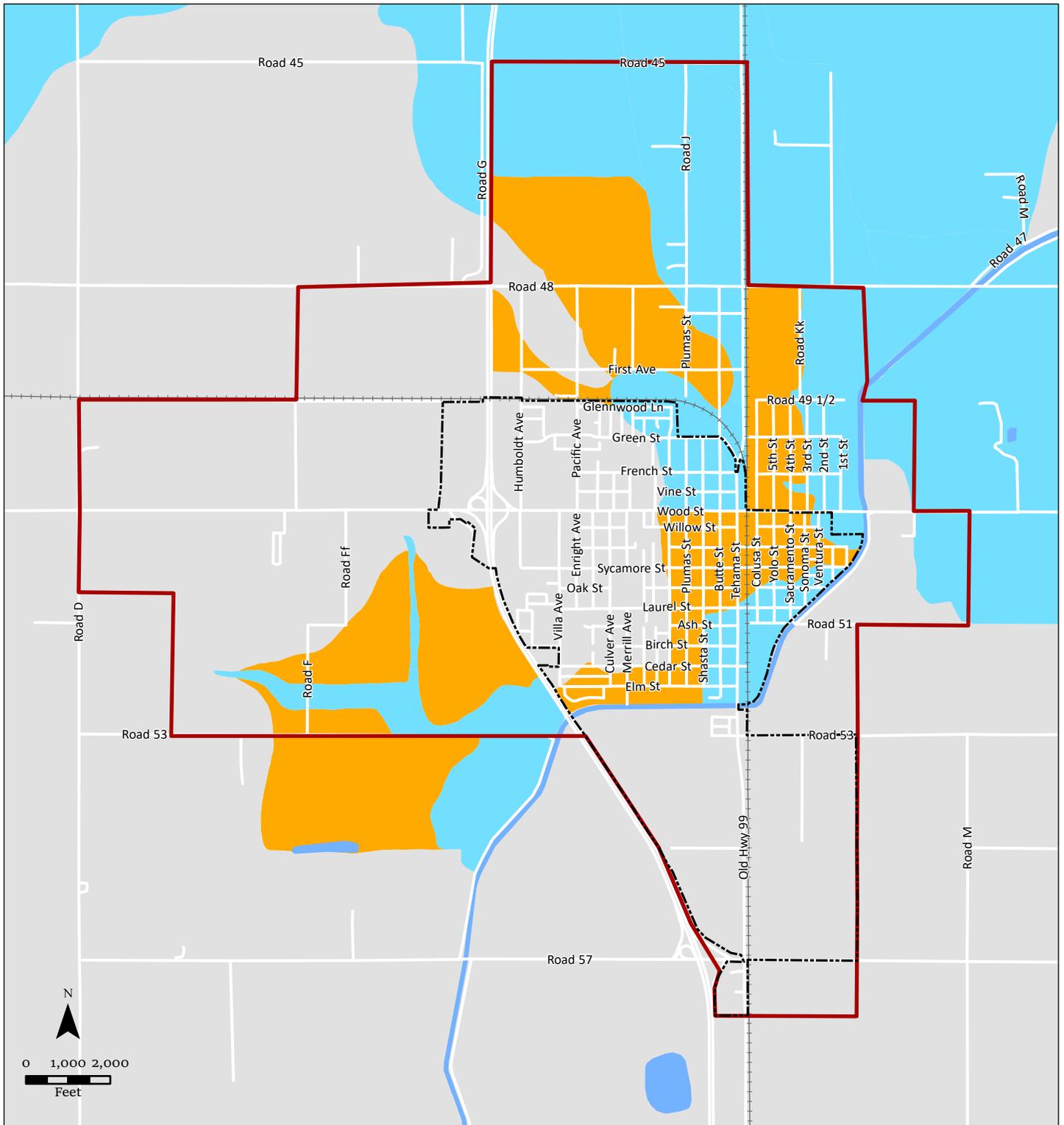
SA-2c: Continue to review projects in flood hazard areas to ensure compliance with Municipal Code Chapter 15.65 (Floodplain Management).

SA-2d: Periodically review the conditions of bridges, culverts, canals and other flood control and stormwater conveyance infrastructure, and when feasible include necessary improvements within the CIP to increase safety and the adequate conveyance of stormwater.

SA-2e: Monitor changes in Federal and State laws and regulations related to local flood protection, including the National Flood Insurance Program and incorporate necessary changes into the Municipal Code, the City's Emergency Operations Plan, and building codes as required and ensure that the City's regulations continue to require that new development within flood hazard zones is consistent with this Safety Element and is required to meet the flood protection requirements of State law, including but not limited to Government Code Sections 65007, 65865.5, 65962 and 66474.5.

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Sources: ArcGIS Online Service; Glenn County 2018. Map date: July 4, 2022.

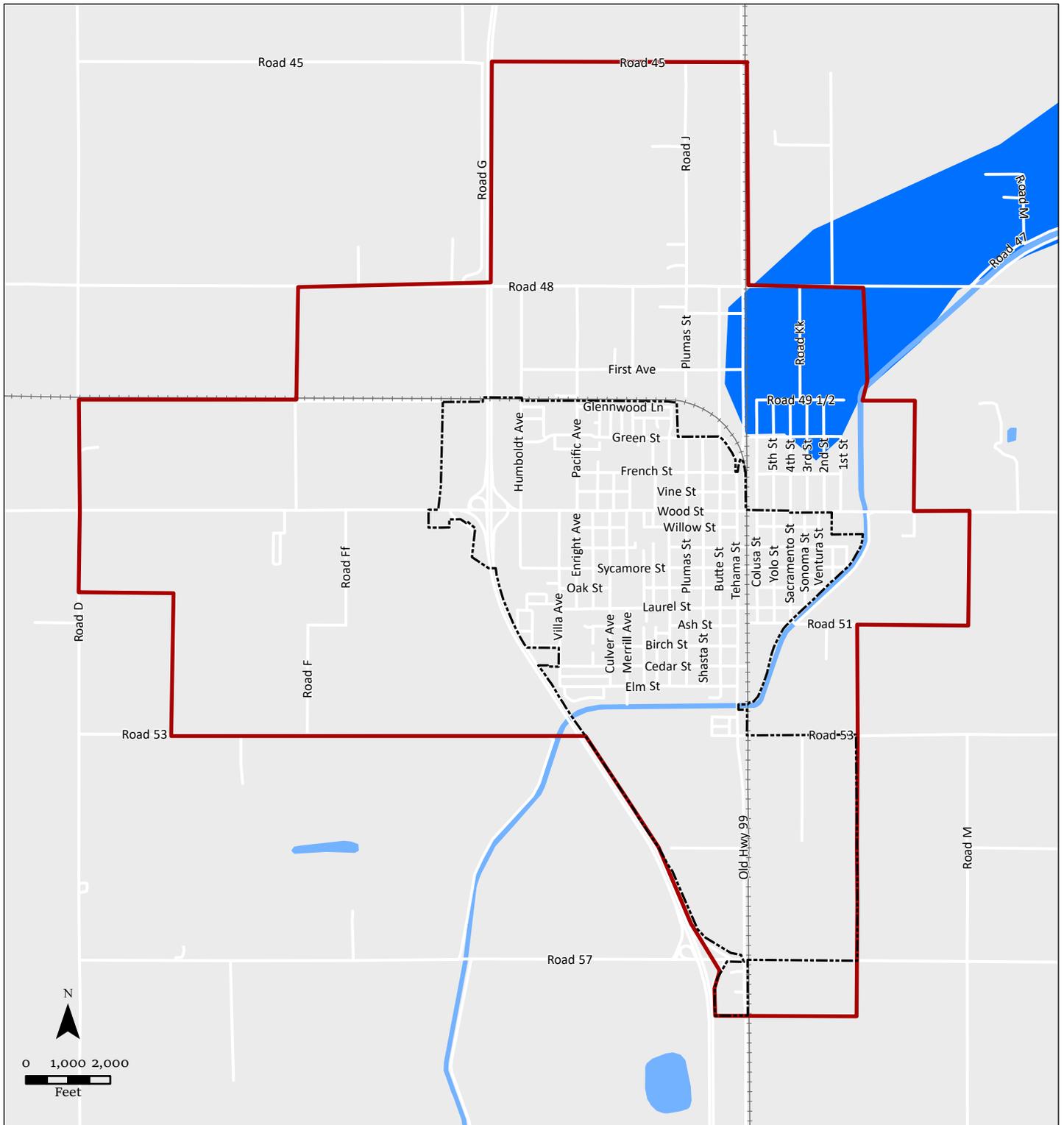
CITY OF WILLOWS

FIGURE 3.9-2 FEMA FLOOD ZONE DESIGNATIONS

Legend

-  City of Willows
-  Willows Sphere of Influence
- FEMA Designation
 -  100-year Flood Zone
 -  500-year Flood Zone
 -  Area of Minimal Flood Hazard

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Sources: ArcGIS Online Service; Glenn County 2018. Map date: July 4, 2022.

CITY OF WILLOWS

FIGURE 3.9-3 DAM INUNDATION AREA

Legend

-  City of Willows
-  Willows Sphere of Influence
-  Black Butte Dam Inundation Area

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This section identifies the existing land use conditions, discusses population and housing trends and projections, and analyzes the Project’s consistency with relevant planning documents and policies adopted for the purpose of avoiding or mitigating an environmental effect. General Plan policies associated with other specific environmental topics are discussed in the relevant sections of this EIR.

No comments on this environmental topic were received during the NOP comment period.

3.10.1 ENVIRONMENTAL SETTING

EXISTING CONDITIONS

The City Limits includes the area within the City’s corporate boundary, over which the City exercises land use authority and provides public services. A City’s Sphere of Influence (SOI) is the probable physical boundary and service area of a local agency, as adopted by a Local Agency Formation Commission (LAFCO). An SOI may include both incorporated and unincorporated areas within which a city or special district will have primary responsibility for the provision of public facilities and services. For the purposes of the Willows General Plan Update, the Planning Area is defined as the area within the City’s SOI/City Boundary that is included in the analysis and planning for the approximate 20-year horizon of the City’s General Plan Update.

Land Use Patterns

When discussing land use, it is important to distinguish between planned land uses and existing land uses. The General Plan land use designations identify the long-term planned use of land, but may not present a complete picture of existing land uses. The Glenn County Assessor’s office maintains a database of existing (assessed) land uses on individual parcels, including and estimated number of dwelling units and related improvements such as non-residential building square footage. This information is used as the basis for property tax assessments and is summarized in Table 3.10-1 and depicted on Figure 3.10-1. It is noted, however, that information available from the Assessor’s office may be incomplete or out-of-date. For example, the California Department of Finance and the U.S. Census ACS estimate over 2,400 housing units within the Willows City Limits, while the Assessor’s office estimates approximately 2,100 housing units.

TABLE 3.10-1: ASSESSED LAND USES – WILLOWS

<i>Assessor Land Use Code*</i>	<i>Residential Units</i>	<i>NON-RES SQ FT</i>	<i>Acres (Gis)</i>	<i>% of Area</i>
Willows City Limits				
Agricultural	0	0	173.81	11.9%
Commercial	0	1,023,109	208.48	14.3%
Governmental	0	62,876	7.47	0.5%
Institutional	0	89,059	17.72	1.2%
Professional	0	40,741	4.62	0.3%
Recreational	0	3,648	0.65	0.0%
Residential	2,097	-	480.29	33.0%
Exempt/ROW/No Match	0	0	563.13	39%

3.10 LAND USE PLANNING AND POPULATION/HOUSING

Assessor Land Use Code*	Residential Units	NON-RES SQ FT	Acres (Gis)	% of Area
Willows City Limits				
City Limits Total	2,097	1,219,433	1,456.17	100.0%
Willows SOI				
Agricultural	0	8,916	2,323.27	64.3%
Commercial	0	125,748	88.23	2.4%
Industrial	0	-	6.95	0.2%
Institutional	0	17,295	6.01	0.2%
Residential	545	0	540.74	15.0%
Exempt/ROW/No Match	0	0	649.96	18.0%
SOI Total	545	151,959	3,615.15	100.0%
Grand Total	2,642	1,371,392	5,071.31	100.0%
<small>NOTE: * ASSESSED USES INCLUDE THE ASSESSORS "PRIMARY" USE CODE CATEGORIES. IN SOME CASES PRIMARY USES MAY DIFFER FROM USE DESCRIPTIONS AND SECONDARY USES IDENTIFIED BY THE ASSESSOR, THEREFORE UNIT COUNTS AND SQUARE FOOTAGES LISTED MAY DIFFER FROM ACTUAL CONDITIONS. SOURCE: GLENN COUNTY ASSESSOR'S OFFICE, 2019; DE NOVO PLANNING GROUP, 2019.</small>				

As shown in Table 3.10-1 the majority of assessed land acreage (33 Percent) within the City of Willows city limits is associated with residential land uses. Other major land uses within the city include commercial uses (14.3 percent), and agricultural uses (11.9 percent). Within the unincorporated portions within the Willows SOI (64.3 percent) of lands are for agricultural purposes and approximately 15 percent are currently residential uses.

Population and Households

Table 3.10-2 summarizes California Department of Finance population and household data for Willows and Glenn County from 1990 through 2020.

Willows experienced moderate population growth between 1990 and 2000. The City's population increased from approximately 5,988 in 1990 to approximately 6,164 in 2000, a 3.87% increase. Population growth rates were greater in Glenn County overall (approximately 5.71%) between 1990 and 2000.

As presented in Table 3.10-2 below, in the decades starting from 1990 through 2000, Willows' population grew significantly more than between 2000 and 2010. However recent growth from 2010 to 2020 shows increased growth rates as compared to the decade from 2000 through 2010. As of January 2021, Willows' population was estimated by the State Department of Finance to be 6,243, an increase of 1.28% from the city's 2010 population of 6,164.

TABLE 3.10-2 POPULATION AND HOUSEHOLD GROWTH

	1990	2000	2010	2020	1990-2000 CHANGE (%)	2000-2010 CHANGE (%)	2010-2020 CHANGE (%)	AVERAGE ANNUAL CHANGE 1990- 2020 (%)
<i>Willows</i>								
Population	5,988	6,220	6,164	6,243	3.87%	-0.90%	1.28%	4.26%
Households	2,196	2,198	2,241	2,299	0.11%	1.97%	2.55%	4.69%
Persons per household	2.73	2.83	2.75	2.72	3.76%	-2.82%	-1.24%	-0.41%
<i>Glenn County</i>								
Population	24,798	26,453	28,120	29,582	6.67%	6.30%	5.20%	19.29%
Households	8,948	9,309	9,911	10,551	4.03%	6.47%	6.47%	17.92%
Persons per household	2.77	2.84	2.84	2.80	2.54%	-0.16%	-1.19%	1.16%

SOURCE: DOF POPULATION AND HOUSING ESTIMATES FOR CITIES, COUNTIES, AND THE STATE, FEBRUARY 2022.

As shown in Table 3.10-2, households increased at a lower rate (0.11%) compared to Willows’ population (3.87%) from 1990 through 2000. From 2000 to 2010 Willows’ household increased from 2,198 in 2000 to 2,241 in 2010, a 1.97% increase. From 2010 to 2020 Willows’ household increased from 2,241 in 2010 to 2,299 in 2020, a 2.55% increase.

Over the years, the average household size has fluctuated slightly with a high of 2.83 in 2000, and a low of 2.72 in 2020. In recent years, household size has remained at similar levels with an average of 2.83 persons per household in 2000, 2.75 persons per household in 2010, and an estimated 2.72 persons per household in 2020.

Housing Units

As of January 2021, the State Department of Finance estimates identified 2,458 housing units in Willows. Between 2000 and 2010, the City’s housing stock increased approximately 1.35% to 2,400 housing units, with an additional 2.42% increase from 2010 to 2020.

Table 3.10-3 compares Willows’ housing growth from 1990 thorough 2020 with the County as a whole. As shown in Table 3.10-3, Housing growth levels in Willows between 2000 and 2010 were less than countywide increased between the same time period at 1.35% and 8.00% respectively. Between 2010 and 2020 Glenn County’s housing unit growth continues to outpace Willows’ housing unit growth at 5.13% and 2.42% respectively.

3.10 LAND USE PLANNING AND POPULATION/HOUSING

TABLE 3.10-3 HOUSING UNITS

	1990	2000	2010	2020	1990-2000 CHANGE (%)	2000-2010 CHANGE (%)	2010-2020 CHANGE (%)	AVERAGE ANNUAL CHANGE 1990- 2020 (%)
Willows	2,240	2,368	2,400	2,458	5.71%	1.35%	2.42%	9.73%
Glenn County	9,329	9,982	10,781	11,334	7.00%	8.00%	5.13%	21.49%

SOURCE: DOF POPULATION AND HOUSING ESTIMATES FOR CITIES, COUNTIES, AND THE STATE, FEBRUARY 2022.

Table 3.10-4 show housing units by type within Willows estimated by the DOF for 2021. As shown in Table 3.10-4 the City of Willows has a diverse range of housing, however, the majority of the housing units in the city are single family detached, which account for 68% of housing units. The remaining housing types include single family attached (3%), duplexes through fourplexes (13%), multi-family apartments with five or more units (15%), and mobile homes (1%).

TABLE 3.10-4 HOUSING UNITS BY TYPE

	TOTAL	SINGLE DETACHED	SINGLE ATTACHED	TWO TO FOUR	FIVE PLUS	MOBILE HOMES	OCCUPIED
Willows	2,462	1,686	65	320	367	24	2,226
Willows %	-	68%	3%	13%	15%	1%	90%
Glenn County	11,394	8,052	213	831	767	1,531	10,501
County %	-	71%	2%	7%	7%	13%	92%

SOURCE: DOF E-5 POPULATION AND HOUSING ESTIMATES FOR CITIES, COUNTIES, AND THE STATE, FEBRUARY 2022.

Population and Household Trends

As shown in Table 3,10-5, Willows has not experienced substantial population and household growth since 2000. The city had a population of 6,243 residents and 2,299 households in 2020. These figures represent a 0.4 percent increase in population and a 4.43 percent increase in households since 2000, significantly lower than the rates of growth in Glenn County (11.83 percent increase in population; 13.35 percent increase in households). Household growth outpaced population growth in Willows during this time, leading to a decline in the average household size from 2.82 in 2000 to 2.72 in 2020. Similarly, average household sizes in the county and region decreased during the same period (2.80 persons in Glenn County) in 2020.

TABLE 3.10-5: POPULATION AND HOUSEHOLD GROWTH, 2000-2020

	2000	2020	CHANGE	
			NUMBER	PERCENT
<i>Willows</i>				
Population	6,218	6,243	25	0.40%
Households	2,201	2,299	98	4.43%
Average Household Size	2.82	2.72	-	-
<i>Glenn County</i>				
Population	26,453	29,582	3,129	11.83%
Households	9,309	10,551	1,243	13.35%
Average Household Size	2.84	2.80	-	-

SOURCES: DOF E-5 POPULATION AND HOUSING ESTIMATES FOR CITIES, COUNTIES, AND THE STATE, FEBRUARY 2022.

3.10.2 REGULATORY SETTING

STATE

California General Plan Law

Government Code Section 65300 requires that each county and city adopt a General Plan “for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning.”

The General Plan will include a comprehensive set of goals, policies, and actions (implementation measures), as well as a revised Land Use Map. It is a comprehensive long-term plan for the physical development of the county or city and is considered a "blueprint" for development. The General Plan must contain seven state-mandated elements: Land Use, Open Space, Conservation, Housing, Circulation, Noise, and Safety. In addition to the state-mandated elements the State provides additional requirements for topical areas for the general plan to address, for example: climate resiliency and adaptation, and environmental justice. The General Plan may also contain any other elements that a county or city wishes to include. The land use element designates the general location and intensity of designated land uses to accommodate housing, business, industry, open space, education, public buildings and grounds, recreation areas, and other land uses.

The 2017 General Plan Guidelines, established by the Governor’s Office of Planning and Research (OPR) to assist local agencies in the preparation of their general plans, further describe the mandatory land use element as a guide to planners, the general public, and decision makers prescribing the ultimate pattern of development for the county or city.

Regional Housing Needs Plan

California General Plan law requires each city and county to have land zoned to accommodate a fair share of the regional housing need. The share is known as the Regional Housing Needs Allocation (RHNA) and is based on a Regional Housing Needs Plan (RHNP) developed by councils of government. California General Plan law requires each City and County to have land zoned to

3.10 LAND USE PLANNING AND POPULATION/HOUSING

accommodate a fair share of the regional housing need. The share is known as the Regional Housing Needs Allocation (RHNA). The determination of the local share of regional housing needs is assigned by the California Department of Housing and Community Development, Division of Housing Policy Development. Regional Housing Needs Allocation numbers are separated into four income categories: very low, low, moderate, and above moderate income levels. The Countywide RHNA for 2021-2029 is summarized in Table 3.10-6. The City is not required to ensure that adequate development to accommodate the RHNA occurs; however, the City must facilitate housing production by ensuring that land is available and that unnecessary development constraints have been removed.

TABLE 3.10-6: REGIONAL HOUSING NEEDS ALLOCATION

<i>INCOME CATEGORY</i>	<i>CITY OF WILLOWS</i>	<i>CITY OF ORLAND</i>	<i>UNINCORPORATED GLENN COUNTY</i>	<i>TOTAL</i>
2021 - 2029				
Extremely Low/ Very low (<30-50% of AMI) *	47	62	75	184
Low (51-80% of AMI)	22	31	30	83
Moderate (81-120% of AMI)	36	44	36	116
Above Moderate (over 120% of AMI)	80	110	88	278
Total	185	247	229	661

NOTES: * (AMI) AREA MEDIAN INCOME

SOURCE: WILLOWS 2014-2019 HOUSING ELEMENT UPDATE

The Glenn County Regional Transportation Plan

The Regional Transportation Plan serves as the planning blueprint to guide transportation investments in Glenn County involving local, State, and Federal funding over the next 20 years. Regional Transportation Plan guidelines require the RTP to be updated every 5 years. Since the latest Glenn County RTP was developed in 2015, it is being updated to be compliant with new standards set in the adopted 2017 Regional Transportation Plan Guidelines for Regional Transportation Planning Agencies. The overall focus of the 2020 RTP is directed at developing a coordinated and balanced multi-modal regional transportation system that is financially constrained to the revenues anticipated over the life of the plan. The balance is achieved by considering investment and improvements for moving people and goods across all modes including roads, transit, bicycle, pedestrian, trucking, railroad, and aviation.

Subdivision Code

A subdivision is any division of land for the purpose of sale, lease or finance. The State of California Subdivision Map Act (Government Code § 66410) regulates subdivisions throughout the state. The goals of the Subdivision Map Act are as follows:

- To encourage orderly community development by providing for the regulation and control of the design and improvement of a subdivision with proper consideration of its relationship to adjoining areas.
- To ensure that areas within the subdivision that are dedicated for public purposes will be properly improved by the subdivider so that they will not become an undue burden on the community.

- To protect the public and individual transferees from fraud and exploitation.

The Map Act allows cities flexibility in the processing of subdivisions. Willows controls this process through the subdivision regulations in the Municipal Code Title 11, Chapter 1 (referred to as the Willows Subdivisions Code). These regulations ensure that minimum requirements are adopted for the protection of the public health, safety and welfare; and that the subdivision includes adequate community improvements, municipal services, and other public facilities.

LOCAL

Local Agency Formation Commission of Glenn County

In 1963, the State Legislature created a local agency formation commission (LAFCO) for each county, with the authority to regulate local agency boundary changes. Subsequently, the State has expanded the authority of a LAFCO. The goals of the LAFCO include preserving agricultural and open space land resources and providing for efficient delivery of services. The Glenn County LAFCO has authority over land use decisions in Glenn County affecting local agency boundaries. Its authority extends to the incorporated cities, including annexation of County lands into a city, and special districts within the County. LAFCO has the authority to review and approve or disapprove the following:

- Annexations to or detachments from cities or districts.
- Formation or dissolution of districts.
- Incorporation or disincorporation of cities.
- Consolidation or reorganization of cities or districts.
- Establishment of subsidiary districts.
- Development of, and amendments to, Spheres of Influence. The Sphere of Influence (SOI) is the probable physical boundary and service area of each local government agency. This may extend beyond the current service area of the agency.
- Extensions of service beyond an agency's jurisdictional boundaries.
- Provision of new or different services by districts.
- Proposals that extend service into previously unserved territory in unincorporated areas.

In addition, the Glenn County LAFCO conducts Municipal Service Reviews (MSRs) for services within its jurisdiction. An MSR typically includes a review of existing municipal services provided by a local agency or district and its infrastructure needs and deficiencies. It also evaluates financing constraints and opportunities, management efficiencies, opportunities for rate restructuring and shared facilities, local accountability and governance, and other issues.

Legislation, including Assembly Bill 1555 and Senate Bill 244, has been enacted to encourage the identification and annexation of islands, which are unincorporated areas substantially surrounded by a city or cities.

Glenn County Airport Land Use Commission

The law, passed in 1967, authorized the creation of Airport Land Use Commissions (ALUC) in California. Per the Public Utilities Code, the purpose of an ALUC is to protect public health, safety,

and welfare by encouraging orderly expansion of airports and the adoption of land use measures that minimizes exposure to excessive noise and safety hazards within areas around public airports to the extent that these areas are not already devoted to incompatible uses (§21670). Furthermore, each ALUC must prepare an Airport Land Use Compatibility Plan (ALUCP). Each ALUCP, which must be based on a twenty-year planning horizon, should focus on broadly defined noise and safety impacts.

The Glenn County Airport Land Use Commission is established according the Chapter 22.10 of the Glenn County Code which was adopted by the Glenn County Board of Supervisors in 1985 (Ordinance No. 830).

The seven-member Glenn County Airport Land Use Commission ensures compatible land uses in the vicinity of all airport facilities. The Airport Land Use Commission review plans, regulations, & other actions of local agencies & airport operators.

The Land Use Commission oversees the Orland and Willows Airport Comprehensive Land Use Plans. The overall goal for the Orland and Willows Airport Comprehensive Land Use Plans is to provide for the orderly growth of the Airport facilities and from the areas surrounding the airports, to safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. This Plan was adopted in 1990 and has not been updated since.

The Glenn County Willows Airport is located within the Willows SOI, immediately east of I-5.

Glenn County General Plan

California state law requires each city and county to adopt a general plan “for the physical development of the county or city, and any land outside its boundaries which bears relation to its planning” (§65300 GovCode). The California Supreme Court has called the general plan the “constitution for future development.”

Glenn County adopted its General Plan in June, 1993. The County’s General Plan provides a comprehensive set of goals, policies, and implementing actions to guide the County’s growth. Figure land uses within the Willows SOI are under Glenn County jurisdiction. The County’s General Plan includes the following elements:

- Land Use
- Circulation
- Housing
- Conservation
- Open Space
- Noise
- Safety

The County’s General Plan establishes allowed land uses for lands within the City’s SOI and Planning Area. While the City of Willows General Plan Land Use Map identifies planned land uses within the SOI and Planning Area, Glenn County has ultimate land use planning, and project approval authority within the SOI unless the lands are annexed into the City.

City of Willows Zoning Ordinance

Title 18 of the Willows Municipal Code is the City's Planning and Zoning Ordinance. The Planning and Zoning Ordinance carries out the policies of the General Plan by classifying and regulating the uses of land and structures within the City, consistent with the General Plan. The Planning and Zoning Ordinance is adopted to protect and promote the public health, safety, comfort, convenience, prosperity, and general welfare of residents and businesses in the City.

Zoning provides a legal mechanism for local government regulation of the land uses described in the General Plan Land Use Map. In addition to providing specific regulations related to minimum lot size, building heights, setbacks, lot coverage, etc., for each zoning district, the Zoning Ordinance also lists the uses that would be acceptable or could be considered in each district, as well as those that would be considered unacceptable. For some uses, further regulations are established. Zoning regulations designate the permitting process that applies for approval of land uses in the zoning district.

3.10.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on land use and population if it will:

- Physically divide an established community;
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect;
- Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

IMPACTS AND MITIGATION MEASURES

Impact 3.10-1: General Plan implementation would not physically divide an established community (Less than Significant)

The proposed General Plan establishes the City's vision for future growth and development. Goal LU-2 aims to ensure that new development is compatible with existing development in order to maintain a high quality of life for residents and prevent land use conflicts.

The land uses allowed under the proposed General Plan (Figure 2.0-2) provide opportunities for cohesive new growth at in-fill locations within existing urbanized areas of the city, as well as new growth adjacent to existing urbanized areas within the existing City Limits, and would not create physical division within the community.

New development and redevelopment projects would be designed to complement the character of the existing community and neighborhoods and provide connectivity between existing development and new development. The proposed General Plan Land Use Map designates sites for a range of developed uses as well as open space. The proposed General Plan does not include any new areas designated for urbanization beyond the current SOI or new roadways, infrastructure, or other features that would divide existing communities. The proposed General Plan would have a **less than significant** impact associated with the physical division of an established community. The policies and actions listed below would ensure that future development is compatible with and well integrated with adjacent communities and land uses. Additional information including policies and actions related to street connectivity can be found in Section 3.14 (Transportation and Circulation) of this DEIR.

GENERAL PLAN GOALS POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

LAND USE ELEMENT POLICIES

LU: 2.1: Promote high quality design and site planning that is compatible with surrounding development, public spaces, and natural resources.

LU 2.2: Prohibit the establishment or encroachment of incompatible uses. Where new residential development is proposed near incompatible uses, such as industrial or intensive agricultural lands, ensure proper setback and buffer requirements are provided to reduce operational restrictions on industrial and agricultural users. Setback and buffer requirements shall be placed on the residential developments when proposed near existing industrial and agriculture uses.

LU 2.3: Require new development that is located within or immediately adjacent to existing residential neighborhoods to be compatible and/or well integrated with the existing residential neighborhoods.

LU 2.4: Incorporate opens spaces and or transitional land uses as buffers between land uses which are potentially incompatible. For example, this could include commercial uses as a buffer between industrial and residential areas and transportation and rail corridors.

LU 2.5: Encourage non-conforming uses to redevelop as conforming uses.

LU 2.6: In considering land use change requests, consider factors such as compatibility with the surrounding uses, privacy, noise, and changes in traffic levels on residential streets.

LU 2.7: Promote logical City boundaries and work with Glenn County to ensure and develop complementary and compatible uses adjacent to Willows.

LU 2.8: Ensure that development within the Willows Airport Influence Area is consistent with the compatible uses identified in the Project Review Guidelines for the Airport Land Use Commission.

LU 2.9: Ensure that the impacts from flooding are adequately analyzed when considering development in flood prone areas.

LU 2.10: Locate residences away from areas of excessive noise, smoke, dust, odor, and lighting, and ensure that adequate provisions, including buffers or transitional uses, are implemented to ensure the health and well-being of existing and future residents.

LU 2.11: Encourage new development projects to incorporate public safety measures into project designs. Such measures may include, but are not limited to: crosswalks, exterior lighting, windows oriented towards the street, and other measures to prevent crime and promote safety through Environmental Design approaches.

LAND USE ELEMENT ACTIONS

LU-2a: Through the development review and permit process, screen development proposals for land use compatibility, including conformance with existing and planned development.

LU-2b: Update the Willows Municipal Code to include development standards for setback and buffer requirements for new residential development adjacent to industrial and agricultural land uses.

LU-2c: Implement the policies and actions included in the Safety Element to protect life and property from impacts associated with flooding.

3.10 LAND USE PLANNING AND POPULATION/HOUSING

LU-2d: When updated flood plain maps are prepared by the Federal Emergency Management Agency (FEMA) or the Department of Water Resources (DWR), review the Land Use Map to identify any potential safety impacts associated with residential land uses located within flood zones.

LU-2e: Refer all applications for development within the Willows Airport Area of Influence to the Airport Land Use Commission (ALUC) for comment.

LU-2f: Review development projects, consistent with the requirements of the California Environmental Quality Act and other applicable laws, to identify potential impacts associated with aesthetics, agriculture, air quality, circulation, community character, natural and cultural resources, greenhouse gases, public health and safety, water quality and supply, public services and facilities, and utilities and to mitigate of adverse impacts to the maximum extent that is feasible and practical.

LU-2g: As part of project review, ensure that structures are reviewed for potential flood impacts. In areas that are subject to 100-year flood events, provide adequate protection in accordance with FEMA flood plain development standards.

Impact 3.10-2: General Plan implementation would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (Less than Significant)

STATE PLANS

The proposed General Plan was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection. Discussion of the proposed General Plan's consistency with State regulations, plans, and policies associated with specific environmental issues (e.g., air quality, traffic, water quality, etc.) is provided in the relevant chapters of this Draft EIR. The State would continue to have authority over any State-owned lands in the vicinity of the city and the proposed General Plan would not conflict with continued application of State land use plans, policies, and regulations adopted to avoid or mitigate environmental effects.

REGIONAL PLANS

The western portion of the Planning Area is located within the Airport Influence Area for the Willows-Glenn County Airport. The Willows Glenn County Airport has 254 Acres of land and an intersecting V-type runway system located adjacent to Interstate 5 west of Willows. The Airport Master plan was adopted in 2008. The overall goal for the Willows Airport Comprehensive Land Use Plan is to provide for the orderly growth of the Airport facility and to safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The Glenn County Airport Land Use Commission is established according the Chapter 22.10 of the Glenn County Code which was adopted by the Glenn County Board of Supervisors in 1985 (Ordinance No. 830). The seven-member Glenn County Airport Land Use Commission ensures compatible land uses in the vicinity of all airport facilities. The Airport Land Use Commission review plans, regulations, & other actions of local agencies & airport operators.

The Land Use Commission oversees the Orland and Willows Airport Comprehensive Land Use Plans. The overall goal for the Orland and Willows Airport Comprehensive Land Use Plans is to provide for the orderly growth of the Airport facilities and from the areas surrounding the airports, to safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general.

General Plan Policy LU 2.8 ensures that development within the Willows Airport Influence Area (shown on Figure 4.2-1 in the Existing Conditions Report) is consistent with the compatible uses identified in the Project Review Guidelines for the Airport Land Use Commission. General Plan Action LU-2e states that the City will refer all applications for development within the Airport Area of Influence to the ALUC for comment to ensure that all future plans have limited impacts. Consistency with the General Plan policies and actions described above would ensure future development projects under the proposed General Plan would not conflict with an adopted Airport Land Use Plan.

CITY PLANS

As set forth by State law, the General Plan serves as the primary planning document for the City and subordinate documents and plans would be updated to be consistent with the General Plan. Similar to the existing General Plan, the proposed General Plan focuses on a balanced land use pattern, creating a community where new development blends with existing neighborhoods, and promoting the City as a desirable place to live and work. The proposed General Plan carries forward and enhances policies and measures from the City's existing General Plan that were intended for environmental protection and would not remove or conflict with City plans, policies, or regulations adopted for environmental protection. The proposed General Plan would require modifications to the City's Zoning Ordinance to provide consistency between the General Plan and zoning; however, these modifications will not remove or adversely modify portions of the Willows Municipal Code that were adopted to mitigate an environmental effect.

SUMMARY

Subsequent development and infrastructure projects would be required to be consistent with all applicable policies, standards, and regulations, including those land use plans, policies, and regulations adopted to mitigate environmental effects by the City as well as those adopted by agencies with jurisdiction over components of future development projects. Potential environmental impact associated with conflicts with land use requirements would be **less than significant**.

3.10 LAND USE PLANNING AND POPULATION/HOUSING

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

LAND USE ELEMENT POLICIES

LU 6-1: Provide adequate infrastructure (i.e., streets, sewer, and storm drain) to meet the needs of existing and future development.

LU 6-2: Require development, infrastructure, and long-term planning projects to be consistent with all applicable infrastructure plans, including the California Water Service District's Urban Water Management Plan, and the City's Capital Improvement Program.

LU 6-3: Require all development projects to mitigate their infrastructure service impacts or demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

LU 6-4: Require the payment of impact fees for all new development.

LU 6-5: Design services and infrastructure to serve existing and planned land uses. Actions

LAND USE ELEMENT ACTIONS

LU 6a: As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.

LU 6b: Ensure that infrastructure is adequately sized to accommodate the proposed development and, if applicable, allow for extensions to future developments.

Impact 3.10-3: General Plan implementation would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure) (Less than Significant)

The proposed General Plan accommodates future growth in Willows, including new businesses, expansion of existing businesses, and new residential uses. Infrastructure and services would need to be extended to accommodate future growth. At full buildout, the proposed General Plan could yield a total of up to 3,490 housing units, and a population of 8,864 people within the Planning Area. As shown in Table 2.0-2, this represents development growth over existing conditions of up to 1,032 new housing units, 2,621 people.

Depending on growth rates, the actual growth during the life of the General Plan could be lower or higher, but would not be expected to exceed the theoretical buildout described in Chapter 2.0 (Project Description).

Given the historical and current population, housing, and employment trends, growth in the city, as well as the entire state, is inevitable. The primary factors that account for population growth are natural increase and net migration. The average annual birth rate for California is expected to be 20 births per 1,000 population. Additionally, California is expected to attract more than one third of the

country's immigrants. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and transportation. While these factors would likely result in growth in Willows during the planning period of the proposed General Plan, growth will continue to occur based primarily on the demand of the housing market and demand for new commercial, industrial, and other non-residential uses. As future development occurs under the proposed General Plan, new roads, infrastructure, and services would be necessary to serve the development, and this infrastructure would accommodate planned growth. The proposed General Plan is intended to accommodate the City's fair share of statewide housing needs, which are allocated by the Glenn County, based on regional numbers provided by the California Department of Housing and Community Development on a regular basis (every eight years).

The proposed General Plan includes policies and actions that minimize environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality effects. Chapters 3.1 through 3.16 and 4.0 provide a discussion of environmental effects associated with development allowed under the proposed General Plan. Each of these EIR chapters include relevant policies and action items that would minimize potential environmental impacts associated with growth, to the greatest extent feasible.

With implementation of General Plan, policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds, beyond those disclosed and analyzed throughout this EIR. Therefore, population and housing growth associated with the proposed General Plan would result a **less than significant** impact.

Impact 3.10-4: General Plan implementation would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere (less than significant)

Much of developed land in the Planning Area is comprised of residential uses, which are not anticipated to undergo significant land use changes under the Proposed General Plan. The Proposed General Plan focuses infill development opportunities and underutilized areas within the City and SOI. The proposed General Plan Land Use Map includes an expansion to the City's total amount of residential dwelling units when compared to existing levels of development. Additional development allowed under the proposed General Plan allows for the diversification of the City's housing supply to meet the needs of the community at various socioeconomic levels. While the proposed General Plan may result in development that could remove individual residences through redevelopment, development allowed under the General Plan identifies lands for a variety of housing densities and types would result in an increase in the total number of residences and provide additional housing opportunities for persons that may be displaced as a result of development.

Therefore, impacts of the proposed General Plan on the displacement of people or housing are considered **less than significant**. The policies listed below would further ensure that a range of housing types are provided in the City.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

LAND USE ELEMENT POLICIES

LU 3.1: Provide for a variety of residential land uses that meet the needs of individuals and families while ensuring that there is adequate land designated to meet Housing goals. (Additional policies specifically related to Housing are included in the Housing Element).

LU 3.2: Encourage residential development to occur in a balanced and efficient pattern that reduces sprawl, preserves open space, and creates convenient connections to other land uses.

LU 3.3: Encourage creativity in the design and construction of residential projects in order to increase affordable housing options throughout the city. Projects that incorporate unique site design, clustered developments, and other tools to increase housing options shall be encouraged.

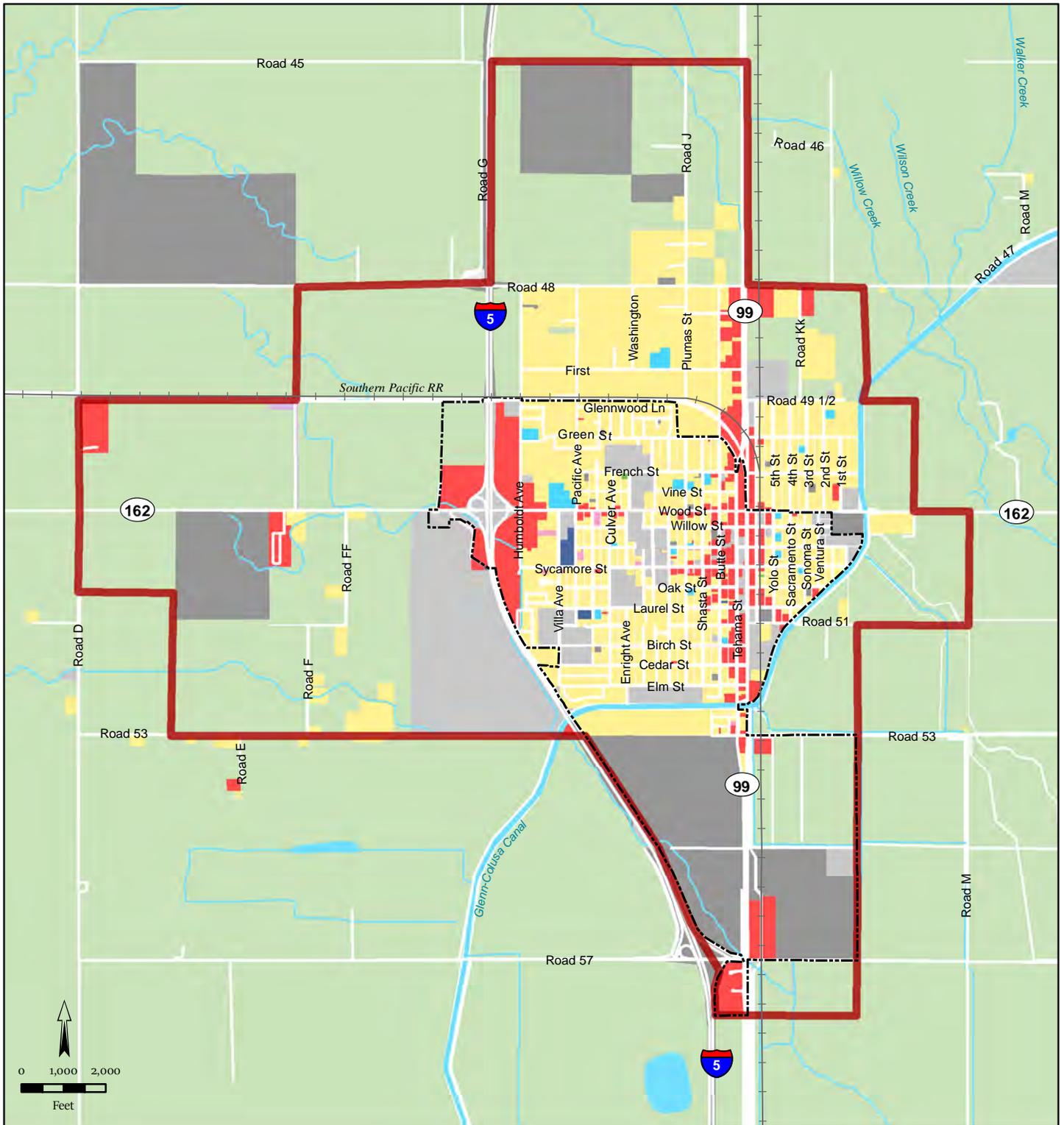
LU 3.4: Encourage growth to contribute to the City's strong, diversified economic base and provide an appropriate balance between employment and housing opportunities for all income levels.

LAND USE ELEMENT ACTIONS

LU-3a: Implement the policies and actions in the Housing Element in order to enhance opportunities to provide affordable housing within the community and to accommodate a range of household types, special need populations, and income levels.

LU-3b: Seek funding for neighborhood improvement programs designed to stabilize and enhance the quality of existing neighborhoods. Such improvements may include, but are not limited to sidewalk upgrade and repair, street tree programs, street lighting, signage, trash collectors, bus stop shelters and benches and similar improvements to the public areas.

LU-3c: Continue to upgrade and provide infrastructure improvements that supports residential neighborhoods and development opportunities as funding is available.



Sources: Glenn County; CalAtlas. Map date: May 22, 2019. Revised January 13, 2020.

LEGEND

- City of Willows
- Willows Sphere of Influence

Assessed Land Use

- | | | |
|--|---|--|
| Agricultural | Governmental | Undefined |
| Residential | Institutional | Exempt |
| Commercial | Industrial | No Assessor Data |
| Professional | Recreational | ROW/Canal |

CITY OF WILLOWS

FIGURE 3.10-1. ASSESSED LAND USES

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This section provides a background discussion and analysis of mineral resources in Willows. This section is organized with an environmental setting, regulatory setting, and impact analysis.

One comment was received on this environmental topic during the NOP comment period. The Department of Toxic Substances stated that if any sites within the project area having been used for mining activities, proper investigation for mine waste should be discussed in the EIR. All comments received during the NOP comment period are included within Appendix A. All topics related to hazardous waste are included in Chapter 3.8 (Hazards and Hazardous Waste).

3.11.1 ENVIRONMENTAL SETTING

MINERAL RESOURCE CLASSIFICATION

Pursuant to the Surface Mining and Reclamation Act of 1975 (SMARA), the California State Mining and Geology Board oversees the Mineral Resource Zone (MRZ) classification system. The MRZ system characterizes both the location and known/presumed economic value of underlying mineral resources. The mineral resource classification system uses four main MRZs based on the degree of available geologic information, the likelihood of significant mineral resource occurrence, and the known or inferred quantity of significant mineral resources. The four classifications are described in Table 3.11-1 below.

TABLE 3.11-1: MINERAL RESOURCE CLASSIFICATION SYSTEM

CLASSIFICATION	DESCRIPTION
MRZ-1	Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
MRZ-2	Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood exists for their presence.
MRZ-3	Areas containing mineral deposits, the significance of which cannot be evaluated.
MRZ-4	Areas where available information is inadequate for assignment to any other MRZ classification.

SOURCE: CALIFORNIA DEPARTMENT OF CONSERVATION DIVISION OF MINES AND GEOLOGY, 2002.

MINERAL RESOURCES

Statewide Resources

In 2012, the California Geological Survey identified that approximately 4 billion tons of permitted aggregate reserves lie within the 31 aggregate study areas in California. These permitted aggregate reserves have been determined to be acceptable for commercial use, exist within properties owned or leased by aggregate producing companies, and have permits allowing mining of aggregate material. Sand, gravel, and crushed stones are construction materials that are collectively referred to as construction aggregate. These materials provide the bulk and strength to cement concrete (CC), asphaltic concrete (AC), plaster, and stucco. Other uses include road base, subbase, railroad ballast, and fill.

From 1981 to 2010, California consumed an average of about 180 million tons of construction aggregate (all grades) per year. (CGS, 2012)

Regional Setting

The primary mineral resources in Glenn County are sand, gravel, and natural gas. In 1997, the California Geological Survey assessed Glenn County mineral resources, with a focus on aggregate resources. Mineral resources in the region are classified based on whether the aggregate meets the specifications for use in CC. This aggregate is termed “CC-grade aggregate.” The material quality specifications for CC-grade aggregate are more restrictive than the specifications for aggregate for other applications. As a result of the strict specifications, CC-grade aggregate deposits are more scarce and valuable than other aggregate resources.

Within Glenn County, 9 ARAs, including 41 subdivisions were identified as containing significant resources of concrete-grade aggregate. These areas contain an estimated minimum of 357 million tons of concrete-grade aggregate resources and a maximum of 1,031 million tons. Fourteen present production sites have an estimated 61 million tons of concrete-grade aggregate reserves, including both sand and gravel.

To be considered significant for the purpose of mineral land classification, a mineral deposit or group of deposits, must meet criteria adopted by the State Mining and Geology Board. These criteria include marketability and threshold values. The threshold value is approximately \$17.375 million for a construction aggregate deposit. CC-grade aggregate sells for approximately \$13 per ton on average in California; therefore, \$17,375,000 equates to about 1.3 million tons of CC-grade aggregate material.

Based on past production data, Glenn County will need 77 million tons of aggregate during the next 50 years. Of this projected demand, approximately 33% (27 million tons) must be suitable for CC and approximately 33% (27 million tons) must be suitable for AC. The 61 million tons of aggregate reserves are approximately 75% of the projected aggregate demand over the next 50 years. Unless new resources are permitted for mining, or alternative resources are used, existing reserves could be depleted by 2038. If a catastrophic event strikes the area and necessitates reconstruction, existing reserves will likely be depleted sooner.

Mineral Extraction Activities

Approximately 41 million tons of CC-grade aggregate reserves are permitted for production in the County (CGS, 2018). There are 21 active and inactive mines within Glenn County (California Department of Conservation, 2016). The nearest active aggregate mine is Watts Pit, owned and operated by the Glenn County Department of Public Works, located to the northeast of the Planning Area along County Road 39.

Local Resources

Figure 3.11-1: Mineral Resource Zones shows mineral resources within and near the Planning Area. As shown on Figure 3.11-1, the Willows Planning Area is generally designated as MRZ-3a “may contain significant aggregate deposit.”

3.11.2 REGULATORY SETTING

STATE

Surface Mining and Reclamation Act of 1975

The California Department of Conservation Surface Mining and Reclamation Act of 1975 (§ 2710), also known as SMARA, provides a comprehensive surface mining and reclamation policy that permits the continued mining of minerals, as well as the protection and subsequent beneficial use of the mined and reclaimed land. The purpose of SMARA is to ensure that adverse environmental effects are prevented or minimized and that mined lands are reclaimed to a usable condition and readily adaptable for alternative land uses. The production and conservation of minerals are encouraged, while giving consideration to values relating to recreation, wildlife, range and forage, as well as aesthetic enjoyment. Residual hazards to public health and safety are eliminated. These goals are achieved through land use planning by allowing a jurisdiction to balance the economic benefits of resource reclamation with the need to provide other land uses.

If a use is proposed that might threaten the potential recovery of minerals from an area that has been classified mineral resource zone 2 (MRZ-2), SMARA would require the jurisdiction to prepare a statement specifying its reasons for permitting the proposed use, provide public notice of these reasons, and forward a copy of the statement to the State Geologist and the State Mining and Geology Board (Cal. Pub. Res. Code Section 2762). Lands classified MRZ-2 are areas that contain identified mineral resources.

Division of Mines and Geology

The California Division of Mines and Geology (DMG) operates within the Department of Conservation. The DMG is responsible for assisting in the utilization of mineral deposits and the identification of geological hazards.

State Geological Survey

Similar to the DMG, the California Geological Survey is responsible for assisting in the identification and proper utilization of mineral deposits, as well as the identification of fault locations and other geological hazards.

Public Resources Code

PRC Section 2762(d) and 2763 requires a lead agency to prepare a statement specifying its reasons for permitting a use that would threaten the potential to extract mineral resources either 1) in an area that has been designated in its general plan as having important minerals to be protected, or 2) if the use is proposed in an area with significant resources pursuant to Section 2761(b)(2) and the lead agency has not yet acted on the State's designation. PRC Section 2763 requires that lead agency land use decisions involving areas designated as being of regional significance shall be in accordance with the lead agency's mineral resource management policies and shall also, in balancing mineral

3.11 MINERAL RESOURCES

values against alternative land uses, consider the importance of these minerals to their market region as a whole and not just their importance to the lead agency's area of jurisdiction.

ASSEMBLY BILL 617

Assembly Bill 617 (AB 617) was signed by Governor Jerry Brown on July 26, 2017, amends California Health and Safety Code section 40920.6, and requires Districts to adopt a schedule of BARCT regulation implementation. BARCT rules amend existing District Regulations but in the case that no specific District Regulations exist, new Regulations are adopted. In the Districts circumstance, it does not have a BARCT regulation so new rules would need to be evaluated. This schedule referenced in Item 5 is a timeframe for the District to potentially adopt new Regulation(s) specific to certain facilities in the natural gas industry identified by CARB.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project may have a significant impact on the environment associated with mineral resources if it would:

1. 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; or
2. 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.

3.11.3 IMPACTS AND MITIGATION MEASURES

Impact 3.11-1: General Plan implementation would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state (Less than Significant)

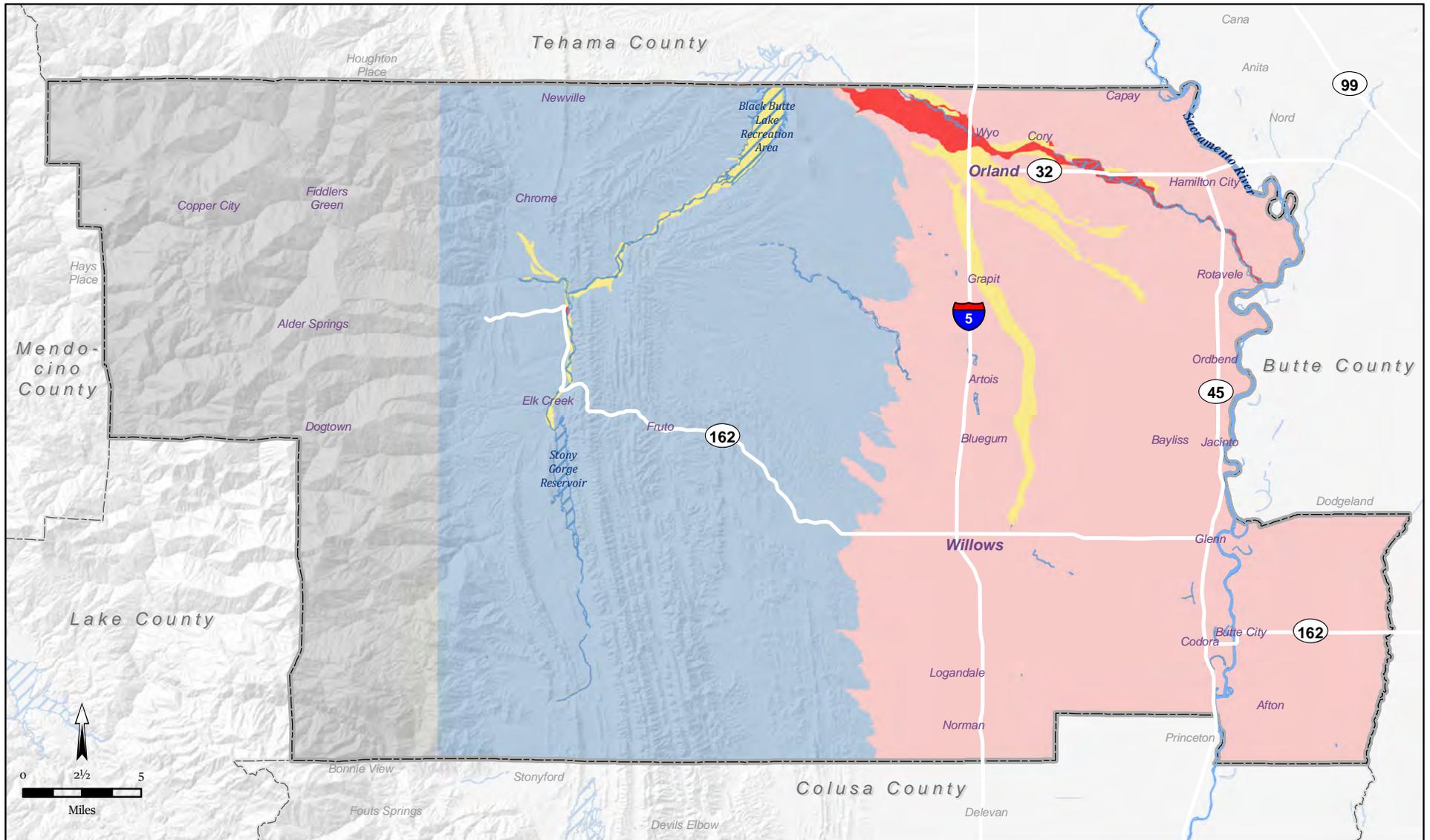
The Planning Area contains four areas identified as MRZ-3a areas that may contain significant aggregate deposit. These areas, located throughout the majority of the county's valley areas.

The only known identified regional mineral resource areas within significant deposits are located north of the City. New urban uses on undeveloped areas of land could impact resource deposits. The implications for land use planning in order to preserve local mineral resources and ensure their future availability are basically two-fold: (a) protecting existing and potential sites from development that would preclude mineral extraction, and (b) assuring that access routes are available to large transport vehicles. Approximately 41 million tons of CC-grade aggregate reserves are permitted for production in the County (CGS, 2018). There are 21 active and inactive mines within Glenn County (California Department of Conservation, 2016). The nearest active aggregate mine is Watts Pit, owned and operated by the Glenn County Department of Public Works, located to the northeast of the Planning Area along County road 35. New urban uses available for development are within the city limits and SOI and would not be developed within an identified significant mineral resource area. There are no other known mineral deposits or resources extraction areas within the City that are of significant value to the region or the state. As such, implementation of the proposed General Plan would have a **less than significant** impact on this environmental topic.

Impact 3.11-2: General Plan implementation would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan (Less than Significant)

The Planning Area does not contain sites designated as a locally important mineral resource recovery site by the City's General Plan. Implementation of the proposed General Plan would not result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Therefore, this impact is considered **less than significant**.

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Sources: California Department of Conservation, Division of Mines and Geology, Open-File Report 97-02: Mineral Land Classification of Concrete-Grade Aggregate Resources in Glenn County, California, 1997, Plates 1 and 2. Map date: June 27, 2019. Revised December 10, 2019.

COUNTY OF GLENN, CALIFORNIA

FIGURE 3.11-1. MINERAL RESOURCE ZONES

- Legend**
- MRZ-2a: Significant aggregate deposit
 - MRZ-2b: High likelihood of significant aggregate deposit
 - MRZ-3a: May contain significant aggregate deposit
 - Unclassified
 - Unmapped

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This section provides a discussion of the regulatory setting and a general description of existing noise sources in the City of Willows. The analysis of potential noise-related impacts in this section was prepared with assistance from Saxelby Acoustics.

No Comments related to this environmental topic were received during the 30-day NOP Public Review Comment Period.

3.12.1 ENVIRONMENTAL SETTING

KEY TERMS

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given area consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, defined as ten times the logarithm of the ratio of the sound pressure squared over the reference pressure squared. All dB levels used in this report are A-weighted values, unless otherwise stated.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by + 5 dB and nighttime hours weighted by +10 dB. Typically, 1 dB higher than Ldn for transportation noise sources.
Frequency	The measure of the rapidity of alterations of a periodic acoustic signal, expressed in cycles per second or Hertz.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
L_{max}	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50 percent of the time during the one hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound.

SEL A rating, in decibels, of a discrete event, such as an aircraft flyover or train passby, that compresses the total sound energy into a one-second event

FUNDAMENTALS OF ACOUSTICS

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), then 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 or Hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as (airborne) sound that is loud, unpleasant, unexpected or undesired, and may therefore be classified as a more specific group of sounds. Perceptions of sound and noise are highly subjective from person to person.

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), as a point of reference, defined as 0 dB. Other sound pressures are then compared to this 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 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

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 A-weighted sound levels. There is a strong correlation between A-weighted sound levels (expressed as dBA) and the way the human ear perceives sound. 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, but are expressed as dB, unless otherwise noted.

The decibel scale is logarithmic, not linear. In other words, two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70 dBA sound is half as loud as an 80 dBA sound, and twice as loud as a 60 dBA sound.

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 environment. A common statistical tool to measure the ambient noise level is the average, or equivalent, sound level (Leq), which corresponds to a steady-state A weighted sound level containing the same total energy as a time varying signal over a given time period (usually one hour). The Leq is the foundation of the composite noise descriptor, Ldn, and shows very good correlation with community response to noise.

The day/night average level (Ldn) 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 Ldn represents a 24-hour average, it tends to disguise short-term variations in the noise environment. CNEL is similar to Ldn, but includes a +3 dB penalty for evening noise. Table 3.12-1 lists several examples of the noise levels associated with common situations.

TABLE 3.12-1: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	NOISE LEVEL (DBA)	COMMON INDOOR ACTIVITIES
	--110--	Rock Band
Jet Fly-over at 300 m (1,000 ft)	--100--	
Gas Lawn Mower at 1 m (3 ft)	--90--	
Diesel Truck at 15 m (50 ft), at 80 km/hr (50 mph)	--80--	Food Blender at 1 m (3 ft) Garbage Disposal at 1 m (3 ft)
Noisy Urban Area, Daytime Gas Lawn Mower, 30 m (100 ft)	--70--	Vacuum Cleaner at 3 m (10 ft)
Commercial Area Heavy Traffic at 90 m (300 ft)	--60--	Normal Speech at 1 m (3 ft)
Quiet Urban Daytime	--50--	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	--40--	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime	--30--	Library
Quiet Rural Nighttime	--20--	Bedroom at Night, Concert Hall (Background)
	--10--	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	--0--	Lowest Threshold of Human Hearing

SOURCE: CALTRANS, TECHNICAL NOISE SUPPLEMENT, TRAFFIC NOISE ANALYSIS PROTOCOL. SEPTEMBER 2013.

EFFECTS OF NOISE ON PEOPLE

The effects of noise on people can be placed in three categories:

- Subjective effects of annoyance, nuisance, and dissatisfaction;
- Interference with activities such as speech, sleep, and learning; and
- Physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants can experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise or the corresponding reactions of annoyance and dissatisfaction. A wide variation in individual thresholds of annoyance exists and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so-called ambient noise level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it.

With regard to increases in A-weighted noise level, the following relationships occur:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference;
- A change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- A 10 dBA change is subjectively heard as approximately a doubling in loudness, and can cause an adverse response.

Stationary point sources of noise – including stationary mobile sources such as idling vehicles – attenuate (lessen) at a rate of approximately 6 dB per doubling of distance from the source, depending on environmental conditions (i.e. atmospheric conditions and either vegetative or manufactured noise barriers, etc.). Widely distributed noises, such as a large industrial facility spread over many acres, or a street with moving vehicles, would typically attenuate at a lower rate.

EXISTING NOISE LEVELS

Traffic Noise Levels

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop L_{dn} (24-hour average) noise contours for all highways and major roadways in the Planning Area. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver and the acoustical characteristics of the site. The FHWA Model predicts hourly Leq values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period.

Existing traffic volumes were obtained from the traffic modeling performed for the General Plan study area. Day/night traffic distributions were based upon continuous hourly noise measurement data. Heavy truck counts were also provided by the traffic engineer. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing conditions. Table 3.12-2 shows the results of this analysis.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segments. In some locations sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is believed to be representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this report.

The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers. The distances reported in Table 3.12-2 are generally considered to be conservative estimates of noise exposure along roadways in the City of Willows.

3.12 NOISE

TABLE 3.12-2: PREDICTED EXISTING TRAFFIC NOISE LEVELS (2020 BASELINE)

ROADWAY	SEGMENT	NOISE LEVEL AT CLOSEST RECEPTORS (DB, L _{DN}) ¹	DISTANCES TO TRAFFIC NOISE CONTOURS, LDN (FEET)		
			60 dB	65 dB	70 dB
Wood St	Washington St to Murdock Ave	63.4	25	54	117
County Road 57	Road D to I-5 SB Ramps	46.5	5	10	23
N Tehama	French Street to SR 162	61.0	9	19	41
N Tehama	SR 162 to W. Willow St.	59.9	8	18	39
Hwy 99W	Road M to County Road 57	52.9	16	34	74
Hwy 99W	County Road 57 to South Ct	57.6	17	37	79
Wood St	N. Tehama St to N. Colusa St.	65.4	17	37	80
County Road 57	Hwy. 99W to Road M	58.2	8	18	38
Interstate 5	Washington St to Murdock Ave	76.1	281	605	1303

NOTES: DISTANCES TO TRAFFIC NOISE CONTOURS ARE MEASURED IN FEET FROM THE CENTERLINES OF THE ROADWAYS.

¹ TRAFFIC NOISE LEVELS ARE PREDICTED AT THE CLOSEST SENSITIVE RECEPTORS

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS TRANSPORTATION CONSULTANTS, CALTRANS, AND SAXELBY ACOUSTICS 2022.

Railroad Noise Levels

Railroad activity in the City of Willows occurs along the California Northern Railroad Company (CFNR) line. The line extends from the Union Pacific Railroad (UPRR) junction in Davis to the UPRR junction in Tehama. The CFNR line is used to haul lumber, beverage products, food products, steel pipe, agricultural products, and construction materials.

In order to quantify noise exposure from existing train operations, continuous (24-hour) noise level measurement surveys were conducted along the CFNR railroad lines which run along the north side of the City.

The purpose of the noise level measurements was to determine typical sound exposure levels (SEL) for railroad line operations, while accounting for the effects of travel speed, warning horns and other factors which may affect noise generation. In addition, the noise measurement equipment was programmed to identify individual train events so that the typical number of train operations could be determined.

Table 3.12-3 shows a summary of the continuous noise measurement results for railroad activity within the city.

TABLE 3.12-3: RAILROAD NOISE MEASUREMENT RESULTS

MEASUREMENT LOCATION	RAILROAD TRACK	GRADE CROSSING /WARNING HORN	TRAIN EVENTS PER 24-HR PERIOD	DISTANCE TO CL	AVERAGE SEL
LT-3	CFNR	Yes	2	50'	107 dBA

SOURCE: SAXELBY ACOUSTICS - 2019

Noise measurement equipment consisted of Larson Davis Laboratories (LDL) model 831 precision integrating sound level meters equipped with a GRAS ½" microphone. The measurement system was calibrated using a B&K 4230 acoustical calibrator before and after testing. Audio recordings of events were captured along with sound measurement data to help with source identification of events. The measurement equipment meets all of the pertinent requirements of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters.

To determine the distances to the day/night average (L_{dn}) railroad contours, it is necessary to calculate the L_{dn} for typical train operations. This was done using the SEL values and above-described number and distribution of daily train operations. The L_{dn} may be calculated as follows:

$$L_{dn} = SEL + 10 \log N_{eq} - 49.4 \text{ dB, where:}$$

SEL is the mean Sound Exposure Level of the event, N_{eq} is the sum of the number of daytime (7 a.m. to 7 p.m.) events plus 10 times the number of nighttime (10 p.m. to 7 a.m.) events per day, and 49.4 is ten times the logarithm of the number of seconds per day. Based upon the above-described noise level data, number of operations and methods of calculation, the L_{dn} value for railroad line operations have been calculated, and the distances to the L_{dn} noise level contours are shown in Table 3.12-4.

TABLE 3.12-4: APPROXIMATE DISTANCES TO THE RAILROAD NOISE CONTOURS

MEASUREMENT LOCATION	EXTERIOR NOISE LEVEL AT 100 FEET, L _{DN}	DISTANCE TO EXTERIOR NOISE LEVEL CONTOURS, FEET		
		60 DB L _{DN}	65 DB L _{DN}	70 DB L _{DN}
UNION PACIFIC – NO WARNING HORNS				
LT-3	54 dB	55'	25'	12'

SOURCE: SAXELBY ACOUSTICS - 2019.

AVIATION NOISE LEVELS

Willows-Glenn County Airport is the main aviation facilities in the proximity of the city, located at 353 Co Rd G, Willows, CA 95988, west of Willows. The airport is owned and operated by Glenn County. The Willows-Glenn County Airport measures 4125 ft. long by 100 ft. wide.

The most recent estimate of annual operations for Willows-Glenn County Airport is approximately 30,000 flights per year. A major portion of airport operations are a result of agricultural aircraft involved in crop dusting activities.

Noise impacts and contours for Willows-Glenn County Airport are addressed in *Willows Airport Land Use Plan*, adopted by the Glenn County Airport Land Use Commission on June 30, 1990. Figures 3.12-2 shows the most recent noise contours developed for the airport.

Fixed Noise Sources

The production of noise is a result of many industrial processes, even when the best available noise control technology is applied. Noise exposures within industrial facilities are controlled by federal and state employee health and safety regulations (OSHA and Cal-OSHA), but exterior noise levels may exceed locally acceptable standards. Commercial, recreational and public service facility activities can also produce noise which affects adjacent sensitive land uses. These noise sources can be continuous and may contain tonal components which have a potential to annoy individuals who live nearby. In addition, noise generation from fixed noise sources may vary based upon climatic conditions, time of day and existing ambient noise levels.

In the City of Willows, fixed noise sources typically include parking lots, loading docks, parks, schools, and other commercial/retail use noise sources (HVAC, exhaust fans, etc.)

From a land use planning perspective, fixed-source noise control issues focus upon two goals:

1. To prevent the introduction of new noise-producing uses in noise-sensitive areas, and
2. To prevent encroachment of noise sensitive uses upon existing noise-producing facilities.

The first goal can be achieved by applying noise level performance standards to proposed new noise-producing uses. The second goal can be met by requiring that new noise-sensitive uses in near proximity to noise-producing facilities include mitigation measures that would ensure compliance with noise performance standards.

Fixed noise sources which are typically of concern include but are not limited to the following:

- HVAC Systems
- Pump Stations
- Steam Valves
- Generators
- Air Compressors
- Conveyor Systems
- Pile Drivers
- Drill Rigs
- Welders
- Outdoor Speakers
- Chippers
- Loading Docks
- Cooling Towers/Evaporative Condensers
- Lift Stations
- Steam Turbines
- Fans
- Heavy Equipment
- Transformers
- Grinders
- Gas or Diesel Motors
- Cutting Equipment
- Blowers
- Cutting Equipment
- Amplified music and voice

The types of uses which may typically produce the noise sources described above, include, but are not limited to: wood processing facilities, pump stations, industrial/agricultural facilities, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, race tracks, landfills, sand and gravel operations, special events such as concerts, and athletic fields. Typical noise levels associated with various types of stationary noise sources are shown in Table 3.12-5.

3.12 NOISE

TABLE 3.12-5: TYPICAL STATIONARY SOURCE NOISE LEVELS

USE	NOISE LEVEL AT 100 FEET, L _{EQ} ¹	DISTANCE TO NOISE CONTOURS, FEET			
		50 DB L _{EQ} (NO SHIELDING)	45 DB L _{EQ} (NO SHIELDING)	50 DB L _{EQ} (WITH 5 DB SHIELDING)	45 DB L _{EQ} (WITH 5 DB SHIELDING)
Auto Body Shop	56 dB	200	355	112	200
Auto Repair (Light)	53 dB	141	251	79	141
Busy Parking Lot	54 dB	158	281	89	158
Cabinet Shop	62 dB	398	708	224	398
Car Wash	63 dB	446	792	251	446
Cooling Tower	69 dB	889	1,581	500	889
Loading Dock	66 dB	596	1,059	335	596
Lumber Yard	68 dB	794	1,413	447	794
Maintenance Yard	68 dB	794	1,413	447	794
Outdoor Music Venue	90 dB	10,000	17,783	5,623	10,000
Paint Booth Exhaust	61 dB	355	631	200	355
Skate Park	60 dB	316	562	178	316
School Playground / Neighborhood Park	54 dB	158	281	89	158
Truck Circulation	48 dB	84	149	47	84
Vendor Deliveries	58 dB	251	446	141	251

¹ Analysis assumes a source-receiver distance of approximately 100 feet, no shielding, and flat topography. Actual noise levels will vary depending on site conditions and intensity of the use. This information is intended as a general rule only, and is not suitable for final site-specific noise studies.

Source: Saxelby Acoustics 2022.

COMMUNITY NOISE SURVEY

A community noise survey was conducted to document ambient noise levels at various locations throughout the City. Short-term noise measurements were conducted at five locations throughout the City on July 17-19, 2019. In addition, seven continuous 24-hour noise monitoring sites were also conducted to record day-night statistical noise level trends. The data collected included the hourly average (L_{eq}), median (L₅₀), and the maximum level (L_{max}) during the measurement period. Noise monitoring sites and the measured noise levels at each site are summarized in Table 3.12-6 and Table 3.12-7. Figure 3.12-1 shows the locations of the noise monitoring sites.

Community noise monitoring equipment included Larson Davis Laboratories (LDL) model 812 and 831 precision integrating sound level meters equipped with ½" microphones. The measurement systems were calibrated using a B&K model 4230 acoustical calibrator before and after testing. The

measurement equipment meets all of the pertinent requirements of the American National Standards Institute (ANSI) for Type 1 (precision) sound level meters.

TABLE 3.12-6: EXISTING CONTINUOUS 24-HOUR AMBIENT NOISE MONITORING RESULTS

SITE	LOCATION	L _{DN} (DBA)	MEASURED HOURLY NOISE LEVELS, DBA LOW-HIGH (AVERAGE)					
			DAYTIME (7:00 AM - 10:00 PM)			NIGHTTIME (10:00 PM - 7:00 AM)		
			L _{EQ}	L ₅₀	L _{MAX}	L _{EQ}	L ₅₀	L _{MAX}
LT-1	Highway 162	72	69	52	86	65	47	84
LT-2	South Humboldt Avenue at I-5	71	68	64	82	64	58	80
LT-3	Railroad	65	66	52	79	52	42	67

SOURCE – SAXELBY ACOUSTICS– 2019.

TABLE 3.12-7: EXISTING SHORT-TERM COMMUNITY NOISE MONITORING RESULTS

SITE	LOCATION	TIME ¹	MEASURED SOUND LEVEL, DB			NOTES
			L _{EQ}	L ₅₀	L _{MAX}	
ST-1	Glennwood Lane / Pacific Avenue	2:14 PM	56	42	75	Primary noise source is traffic on Pacific Avenue. Secondary noise sources include activity from neighbors. Lmax caused by passing autos.
ST-2	Willows High School	9:39 AM	58	56	68	Primary noise source is traffic on West Wood Street. Secondary noise sources include activity from neighbors. Lmax caused by passing autos.
ST-3	Sycamore Park	2:51 PM	48	44	64	Primary noise source is traffic on South Culver Street. Secondary noise sources include activity from park-goers. Lmax caused by passing autos.
ST-4	Jensen Park	3:10 PM	52	46	70	Primary noise source is traffic on Elm Street. Secondary noise sources include activity from park-goers. Lmax caused by passing autos.
ST-5	East Willows	9:58 AM	45	43	56	Primary noise source is auto traffic on Sierra St. Secondary noise sources include local wildlife and distant train horn. Lmax caused by passing autos.

1 - ALL COMMUNITY NOISE MEASUREMENT SITES HAVE A TEST DURATION OF 10:00 MINUTES.

SOURCE - SAXELBY ACOUSTICS 2019.

The results of the community noise survey shown in Table 3.12-6 and 3.12-7 indicate that existing transportation (traffic and railroad) noise sources were the primary contributors of noise observed

in the City with commercial and industrial noise contributing to the ambient noise environment in some locations.

3.12.2 REGULATORY SETTING

FEDERAL

Federal Highway Administration (FHWA)

The FHWA has developed noise abatement criteria that are used for federally funded roadway projects or projects that require federal review. These criteria are discussed in detail in Title 23 Part 772 of the Federal Code of Regulations (23CFR772).

Environmental Protection Agency (EPA)

The EPA has identified the relationship between noise levels and human response. The EPA has determined that over a 24-hour period, an Leq of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at an Leq of 55 dBA and interior levels at or below 45 dBA. Although these levels are relevant for planning and design and useful for informational purposes, they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community.

The EPA has set 55 dBA Ldn as the basic goal for residential environments. However, other federal agencies, in consideration of their own program requirements and goals, as well as difficulty of actually achieving a goal of 55 dBA Ldn, have generally agreed on the 65 dBA Ldn level as being appropriate for residential uses. At 65 dBA Ldn activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

The Department of Housing and Urban Development (HUD) was established in response to the Urban Development Act of 1965 (Public Law 90-448). HUD was tasked by the Housing and Urban Development Act of 1965 (Public Law 89-117) “to determine feasible methods of reducing the economic loss and hardships suffered by homeowners as a result of the depreciation in the value of their properties following the construction of airports in the vicinity of their homes.”

HUD first issued formal requirements related specifically to noise in 1971 (HUD Circular 1390.2). These requirements contained standards for exterior noise levels along with policies for approving HUD-supported or assisted housing projects in high noise areas. In general, these requirements established the following three zones:

- 65 dBA Ldn or less - an acceptable zone where all projects could be approved.
- Exceeding 65 dBA Ldn but not exceeding 75 dBA Ldn - a normally unacceptable zone where mitigation measures would be required, and each project would have to be individually evaluated for approval or denial. These measures must provide 5 dBA of attenuation above the attenuation provided by standard construction required in a 65 to 70 dBA Ldn area and 10 dBA of attenuation in a 70 to 75 dBA Ldn area.

- Exceeding 75 dBA Ldn - an unacceptable zone in which projects would not, as a rule, be approved.

HUD's regulations do not include interior noise standards. Rather a goal of 45 dBA Ldn is set forth and attenuation requirements are geared towards achieving that goal. HUD assumes that using standard construction techniques, any building will provide sufficient attenuation so that if the exterior level is 65 dBA Ldn or less, the interior level will be 45 dBA Ldn or less. Thus, structural attenuation is assumed at 20 dBA. However, HUD regulations were promulgated solely for residential development requiring government funding and are not related to the operation of schools or churches.

The federal government regulates occupational noise exposure common in the workplace through the Occupational Health and Safety Administration (OSHA) under the EPA. Noise exposure of this type is dependent on work conditions and is addressed through a facility's or construction contractor's health and safety plan. With the exception of construction workers involved in facility construction, occupational noise is irrelevant to this study and is not addressed further in this document.

STATE

California Department of Transportation (Caltrans)

Caltrans has adopted policy and guidelines relating to traffic noise as outlined in the Traffic Noise Analysis Protocol (Caltrans 2011). The noise abatement criteria specified in the protocol are the same as those specified by FHWA.

Governor's Office of Planning and Research (OPR)

OPR has developed guidelines for the preparation of general plans (Office of Planning and Research, 2003). The guidelines include land use compatibility guidelines for noise exposure.

Glenn County General Plan

The Glenn County General Plan Noise Element establishes goals and policies, as well as criteria for evaluating the compatibility of individual land uses with respect to noise exposure.

In the planning area of approximately 5,000 square miles, with a population density of about ten persons per square mile, and with most of its extensive mountain area in substantially unpopulated and undeveloped Federal land ownership, noise is a minor problem with respect to the total area.

General policy is to locate particular present or potential problem sites, identify noise sources, and provide for the reduction and/or reasonable control of noise through this plan element, precise plans based hereon, and appropriate regulatory measures to effectuate the proposals contained herein.

Noise in Area

Noise at or approaching problem magnitudes in the area is concentrated in the urban areas, at certain industrial operations, and along the corridors of transportation routes, air, railway and highway.

Urban and industrial noises and their sources are considered as a local noise problem subject to local attention, and related to but somewhat distinct from transportation noise, the control of which involves a number of Federal, State and local agencies.

It is plan policy to recognize and treat both fields of noise problems, each in a manner and to a degree considered reasonable and adequate for the best interests of the area and the comfort and convenience of its people.

Policy Regarding Needed Controls

Urban and industrial noise problems are generated by people and their local activities and in their use of land and equipment, and in their business and industrial operations.

Control of such noises and their sources is most effectively applied, as and when needed, by local City or County ordinances which include enforcement provisions which specify maximum permissible noise levels in relation to established ambient levels.

Controls of noises from transportation equipment and facilities, such as motor vehicles, railroad trains and aircraft, and their highways, tracks and airways, are almost entirely in the legal jurisdiction of Federal and State agencies.

The preparation of this Noise element was assisted by such agencies, and controls and preventive measures applied by or available through such agencies are incorporated herein.

Desired Maximum Levels in Land Use Areas

The intensity of sound, or noise, as detectable by the human ear, is measured in “Decibel” units. For purposes of this element, the A-weighted decibel unit, (dBA), as registered on commercial sound level meters, is used in relation to surface noises.

Highway Design Standards

The following is a summary of Federal standards for use in the design of roads and highways which are applicable with minor variations in California, and which are proposed element guides.

Land Use Category	Desired Ambient Level – L ₁₀
A. Unique and unusual tracts of land in which serenity and quiet are of extraordinary significance and preservation of those qualities if the area is to continue to serve its intended purpose.	60 dBA (Exterior)

Land Use Category	Desired Ambient Level – L ₁₀
B. Residential areas, schools, churches, libraries, hospitals, and so forth.	70 dBA (Exterior)
C. Other developed land not included in (A) and (B) and generally constituted by urbanized businesses or industrialized areas.	75 dBA (Exterior)
D. Special condition sites, areas, or activities. The design noise level should be established, based on the merit of the specific case and an analysis-of the acceptable level.	(Exterior or Interior)

Land Use Classification Standards

The following standards are proposed as generally desirable ambient exterior noise level guides to be used together with other basic plan elements and in the future planning and location of noise-sensitive land uses and developments in relation to noise generating uses and facilities.

Land Use Classification	Desired Ambient Level, dBA
Residential, rural-suburban:	10 PM to 7 AM 7 AM to 10 PM
	40 – 45 – 60* 45 – 50
Residential, suburban:	10 PM to 7 AM 7 AM to 10 PM
	45 – 50 – 65* 50 – 55
Residential, low density urban:	10 PM to 7 AM 7 AM to 10 PM
	50 – 55 – 70* 55 – 60
Residential, med/high density:	10 PM to 7 AM 7 AM to 10 PM
	55 – 60 – 70* 60 – 75
Commercial zones, districts:	10 PM to 7 AM 7 AM to 10 PM
	65 – 70 70 – 75
Industrial zones, districts:	24 hours
	75

*Proposed where transportation noise is a significant factor.

NOTE: It is expected that some periodic peak noises from various agricultural and forestry operations which are common and established operations within the area may exceed the above desired ambient levels.

The above standards are intended to be applied with careful attention to the particular City or County area conditions, such as size and nature of development and expansion area, mixture of uses and spacing of mixed uses, present ambient level, etc.

The following are summarized noise level standards established by the Department of Housing and Urban Development for residential mortgaging estimates, construction projects and new housing.

3.12 NOISE

General External Exposure, dBA	*NEF ZONES, Airport Environs
1. <u>Unacceptable:</u>	
a. Exceeds 80, 60 min. per 24 hours	Greater than 40*
b. Exceeds 75, 8 hours per 24 hours	
2. <u>Discretionary, Normally Unacceptable:</u>	
a. Exceeds 65, 8 hours per 24 hours	Between 30* & 40*
b. Loud repetitive sounds on site	
3. <u>Discretionary, Normally Acceptable:</u>	
a. Does not exceed 65 more than 8 hours per 24 hours	Less than 30*
4. <u>Acceptable:</u>	
a. Does not exceed 45 more than 30 minutes per 24 hours	Less than 30*

*NEF = "Noise Exposure Forecast," HUD Noise Assessment Guidelines.

Because the foregoing HUD standards also apply to FHA financing of residential housing, they must be given particular attention and be related closely to the preceding and use classification standards if and when a local jurisdiction considers application of non-transportation noise regulations.

Noise from Transportation Facilities Standards

The State law definition of the Noise element mentions only, and so gives primary importance, to noise generated by transportation facilities:

1. Highways and Freeways
2. Ground rapid transit systems
3. Ground facilities associated with all airports operating under permit from the State Department of Aeronautics

Since ground rapid transit systems do not exist in the planning area except in the mild form of limited bus operation on public roads and highways, and since area airports are general aviation operations not used for the scheduled airline purposes or for large commercial jet engine aircraft, this Noise element plan directs primary attention to highway and freeway noise problems in the area.

Control of noise related to motor vehicles, aircraft, and railroad equipment is under the jurisdiction of Federal and State agencies. For this reason, this plan element is designed to present information useful for planning purposes rather than to propose specific local control standards for transportation facilities.

Under the State law, the agencies responsible for the construction and maintenance of major transportation facilities are obligated to provide present and projected noise levels for their facilities. Therefore, in this planning area, the State Department of Transportation is the major contributor of such information.

Standards for Basic Information

Two recognized methods for presenting the present and projected noise level information are available from the California Department of Transportation, Division of Highways:

- a. "Test Method No. Calif. 701-A," mean truck noise levels for diesel trucks.
- b. "L₁₀ Method," the sound level that is exceeded ten percent of the time (the 10th percentile) for the period under consideration. This value is an indicator of both the magnitude and frequency of occurrence of the loudest noise events.

Both the U.S. Department of Transportation and the U.S. Department of Housing and Urban Development accept the L₁₀ Method, rather than the California Method. The Department of Transportation has provided L₁₀ Method data for 1974 and projected 1995 noise contour mapping of urban areas, together with section drawings from which to apply Calif. 701-A Method data along low traffic volume rural routes on an interim basis.

- c. Government Code Sec. 65302(g) Standards

Data Sources	dBA Map Contours
From LIQ data, meter readings, (or California Method charts, etc.):	
1. Freeways and Highways -	Down to 65
2. At hospitals, rest homes, long-term medical or mental care, or outdoor recreation areas (as appropriate) -	Down to 45

- d. Airport Ground Facilities and Aircraft

The following noise level standard is proposed as a goal for existing airports and a control for future airports where residential or hospital, etc. uses as above are located adjacent to, or in close proximity to the airport boundaries.

Location of Sound Level Reading	*CNEL Reading
At airport boundary adjacent to residential, etc. use areas	65 dBA

*CNEL = "Community Noise Equivalent Level," in decibels, represents the average daytime noise level during a 24-hour day, adjusted to an equivalent level to account for the lower tolerance of people to noise during evening and night-time periods relative to daytime periods.

General Policy Statements re. Standards, Goals

This Noise element is designed to provide a guide for local jurisdictions to use in relation to their particular needs and conditions. It is adaptable for adoption in this form as the broad General Plan element and may be revised or supplemented as particular needs dictate.

Standards contained herein are derived from State and Federal agency sources, and in most cases were developed specifically for such General Plan and related purposes.

Goals of the plan element are to provide the general guide and sufficient detail to identify noise problems, present basic standards for their reduction and/or control and indicate methods to effectuate such controls.

The element and its effective application in the planning area has value in that it may produce a more pleasant "people" environment through reduction and control of noise pollution which has been proven to have, at certain levels, adverse effects upon the physical and mental well-being of persons subjected to such pollution.

3.12.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the project will have a significant impact related to noise if it will result in:

- a. Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?
- b. Generate excessive groundborne vibration or groundborne noise levels?
- c. For a project located within the vicinity of a private airstrip or 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?

Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses. The potential increase in traffic noise from the project is a factor in determining significance. Research into the human perception of changes in sound level indicates the following:

- A 3-dB change is barely perceptible,
- A 5-dB change is clearly perceptible, and
- A 10-dB change is perceived as being twice or half as loud.

A limitation of using a single noise level increase value to evaluate noise impacts is that it fails to account for pre-project-noise conditions.

TRANSPORTATION NOISE INCREASE CRITERIA

Table 3.12-8 is based upon recommendations made by the Federal Interagency Committee on Noise (FICON) to provide guidance in the assessment of changes in ambient noise levels resulting from aircraft operations. The recommendations are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, it has been accepted that they are applicable to all sources of noise described in terms of cumulative noise exposure metrics such as the Ldn.

TABLE 3.12-8: SIGNIFICANCE OF CHANGES IN NOISE EXPOSURE

<i>AMBIENT NOISE LEVEL WITHOUT PROJECT, L_{DN}</i>	<i>INCREASE REQUIRED FOR SIGNIFICANT IMPACT</i>
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

SOURCE: FEDERAL INTERAGENCY COMMITTEE ON NOISE (FICON)

Based on the Table 3.12-8 data, an increase in the traffic noise level of 1.5 dB or more would be significant where the pre-project noise level exceeds 65 dB Ldn. Extending this concept to higher noise levels, an increase in the traffic noise level of 1.5 dB or more may be significant where the pre-project traffic noise level exceeds 75 dB Ldn. The rationale for the Table 3.12-8 criteria is that, as ambient noise levels increase, a smaller increase in noise resulting from a project is sufficient to cause annoyance.

These transportation noise thresholds of significance shown in Table 3.12-8 are established by the proposed General Plan via Policy N-1.4.

NON-TRANSPORTATION NOISE INCREASE CRITERIA

Stationary and Non-Transportation Noise Sources - A significant impact will occur if the project results in an exceedance of the noise level standards contained in Table N-3 of the General Plan Noise Element, or the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater.

Vibration Standards

Vibration is like noise in that it involves a source, a transmission path, and a receiver. While vibration is related to noise, it differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person’s perception to the vibration will depend on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of peak particle velocities.

The City does not have specific policies pertaining to vibration levels. However, vibration levels associated with construction activities and railroad operations are addressed as potential noise impacts associated with project implementation.

Human and structural response to different vibration levels is influenced by several factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3.12-9 indicates that the threshold for damage to structures ranges from 0.2 to 0.6 peak particle velocity in inches per second (in/sec p.p.v).

TABLE 3.12-9: EFFECTS OF VIBRATION ON PEOPLE AND BUILDINGS

PEAK PARTICLE VELOCITY		HUMAN REACTION	EFFECT ON BUILDINGS
MM/SEC.	IN./SEC.		
0.15-0.30	0.006-0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling-houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10-15	0.4-0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic but would cause "architectural" damage and possibly minor structural damage.

SOURCE: CALTRANS. TRANSPORTATION RELATED EARTHBOEN VIBRATIONS. TAV-02-01-R9601 FEBRUARY 20, 2002.

Construction activities may generate perceptible vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams, pile drivers) are used. Construction activities often include demolition of existing structures, excavation, site preparation work, foundation work, and new building framing and finishing.

For structural damage, the California Department of Transportation uses a vibration limit of 0.5 inches/second, peak particle velocity (in/sec, PPV) for buildings structurally sound and designed to modern engineering standards.

Table 3.12-10 presents typical vibration levels that could be expected from construction equipment at a distance of 25-100 feet. The highest levels of vibration typically occur from pile driving operations. Pile driving vibrations are typically below 0.5 in/sec, PPV at distances of 50 feet or more.

TABLE 3.12-10: VIBRATION LEVELS FOR VARYING CONSTRUCTION EQUIPMENT

TYPE OF EQUIPMENT	P.P.V. @ 25 FEET (INCHES/SECOND)	P.P.V. @ 50 FEET (INCHES/SECOND)	P.P.V. @ 75 FEET (INCHES/SECOND)	P.P.V. @ 100 FEET (INCHES/SECOND)
Pile Drive (Impact)	0.644	0.226	0.124	0.080
Pile Drive (Sonic)	0.170	0.060	0.033	0.021
Large Bulldozer	0.089	0.031	0.017	0.011
Loaded Trucks	0.076	0.027	0.015	0.010
Small Bulldozer	0.003	0.001	0.000	0.000
Auger/Drill Rigs	0.089	0.031	0.017	0.011
Jackhammer	0.035	0.012	0.006	0.004
Vibratory Hammer	0.070	0.025	0.0135	0.009
Vibratory Compactor/Roller	0.210	0.074	0.040	0.026

SOURCE: FEDERAL TRANSIT ADMINISTRATION, TRANSIT NOISE AND VIBRATION IMPACT ASSESSMENT GUIDELINES, MAY 2006

IMPACTS AND MITIGATION MEASURES

Impact 3.12-1: General Plan implementation may result in exposure to significant traffic noise sources (Less-Than-Significant)

The FHWA Highway Traffic Noise Prediction Model (FHWA-RD 77-108) was used to develop L_{dn} (24-hour average) noise contours for all highways and major roadways in the General Plan study area. The model is based upon the CALVENO noise emission factors for automobiles, medium trucks, and heavy trucks, with consideration given to vehicle volume, speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the site. The FHWA Model predicts hourly Leq values for free-flowing traffic conditions, and is generally considered to be accurate within 1.5 dB. To predict L_{dn} values, it is necessary to determine the hourly distribution of traffic for a typical 24-hour period.

Existing (2019) and Proposed 2040 General Plan Buildout volumes were obtained from the traffic modeling performed for the General Plan study area. Day/night traffic distributions were based upon continuous hourly noise measurement data and Saxelby Acoustics file data for similar roadways. Using these data sources and the FHWA traffic noise prediction methodology, traffic noise levels were calculated for existing conditions.

Traffic noise levels are predicted at the sensitive receptors located at the closest typical setback distance along each project-area roadway segment. In some locations sensitive receptors may be located at distances which vary from the assumed calculation distance and may experience shielding from intervening barriers or sound walls. However, the traffic noise analysis is representative of the majority of sensitive receptors located closest to the project-area roadway segments analyzed in this report.

The actual distances to noise level contours may vary from the distances predicted by the FHWA model due to roadway curvature, grade, shielding from local topography or structures, elevated roadways, or elevated receivers.

Table 3.12-11 shows the future noise levels and the increase in noise levels associated with traffic on the local roadway network under the proposed General Plan, versus the existing (Baseline 2019) conditions.

TABLE 3.12-11: EXISTING (2019) VS. PROPOSED 2040 GENERAL PLAN

ROADWAY	SEGMENT	NOISE LEVELS (L_{DN} , dB) AT NEAREST SENSITIVE RECEPTORS				
		BASELINE (2020)	PROPOSED GP	CHANGE	CRITERIA ¹	SIGNIFICANT?
Wood Street	Washington St to Murdock Ave	63.4	63.7	0.3	+3.0 dB	No
County Road 57	Road D to I-5 SB Ramps	46.5	46.6	0.1	+1.5 dB	No
N Tehama	French Street to SR 162	61.0	61.4	0.4	+3.0 dB	No
N Tehama	SR 162 to W. Willow St.	59.9	60.2	0.3	+1.5 dB	No
Highway 99W	Road M to County Road 57	52.9	53.2	0.3	+1.5 dB	No
Highway 99W	County Road 57 to South Ct	57.6	57.9	0.3	+1.5 dB	No
Wood Street	N. Tehama St to N. Colusa St.	65.4	65.7	0.3	+3.0 dB	No
County Road 57	Hwy. 99W to Road M	58.2	58.6	0.4	+1.5 dB	No

¹ WHERE EXISTING NOISE LEVELS ARE LESS THAN 60 DB AN INCREASE OF 5 DB WOULD BE A SIGNIFICANT INCREASE. WHERE EXISTING NOISE LEVELS EXCEED 60 DB BUT ARE LESS THAN 65 DB, AN INCREASE OF 3 DB OR MORE WOULD BE SIGNIFICANT. ADDITIONALLY, ANY INCREASE CAUSING NOISE LEVELS TO EXCEED THE CITY'S NORMALLY ACCEPTABLE 60 DB LDN NOISE LEVEL STANDARD AT AN EXISTING OUTDOOR ACTIVITY AREA OF A RESIDENTIAL USE WOULD ALSO BE SIGNIFICANT. WHERE EXISTING NOISE LEVELS EXCEED 65 DB, AN INCREASE OF 1.5 DB OR MORE WOULD BE SIGNIFICANT.

SOURCE: FHWA-RD-77-108 WITH INPUTS FROM FEHR & PEERS TRANSPORTATION CONSULTANTS, CALTRANS, AND SAXELBY ACOUSTICS 2022.

Buildout of the General Plan may contribute to an exceedance of the City’s transportation noise standards and/or result in significant increases in traffic noise levels at existing sensitive receptors. As indicated by Tables 3.12-11, the related traffic noise level increases with a circulation system buildout of the proposed 2040 General Plan are predicted to increase between 0.1 to 0.4 dB versus the existing (2019) conditions.

General Plan Policies N-1.1 through N-1.8, and Action N-1a, identified below, are intended to minimize exposure to excessive noise, including noise associated with traffic. Specifically, Policies N-1.1 through N-1.8 support noise-compatible land uses in the vicinity of traffic noise sources and require that new development and infrastructure projects be reviewed for consistency with the noise standards established in Tables N-1 and N-2. The proposed General Plan standards required under Policy N-1.3, for exposure to traffic noise meet or exceed the noise level standards of the adopted General Plan.

As shown in Table 3.12-11, the traffic noise increases associated with the proposed General Plan comply with the applicable test of significance. Therefore, the proposed General Plan would have a **less-than-significant** impact relative to traffic noise on existing noise-sensitive uses in the City.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS**GOAL N-1**

Preserve and enhance the existing and future noise environment by minimizing exposure to harmful and excessive noise throughout the community

Policies

- N-1.1 Consider the noise compatibility of existing and future development when making land use planning decisions.
- N-1.2 Require development projects and changes to existing uses to be consistent with the standards indicated in Table N-1 to ensure acceptable noise levels for existing and future development.
- N-1.3 Require new development to reduce excessive noise to the standards indicated in Tables N-1 and N-2 through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials.
- N-1.4 Ensure that new development does not result in indoor noise levels exceeding 45 dBA Ldn for residential uses by requiring the implementation of construction techniques and noise reduction measures for all new residential development.
- N-1.5 Require acoustical studies for new noise-generating and noise-sensitive developments, and transportation improvements that would increase roadway capacity, move traffic closer to sensitive receptors.
- N-1.6 For projects that are required to prepare an acoustical study, the following stationary and transportation noise source criteria shall be used to determine the significance of those impacts.

Stationary and Non-Transportation Noise Sources

- A significant impact will occur if the project results in an exceedance of the noise level standards contained in this element, or for instances where the ambient noise level is already above the standards contained in this element, the project will result in an increase in ambient noise levels by more than 3 dB, whichever is greater.
- This does not apply to construction activities which are conducted according to the best practices outlined in Action N-1b. Compliance with these requirements shall be sufficient to reduce temporary construction-related noise impacts to a less than significant level.

Transportation Noise Sources

- Where existing traffic noise levels are 60 dB Ldn or less at the outdoor activity areas of noise-sensitive uses, a +5 dB Ldn increase in roadway noise levels will be considered significant;
- Where existing traffic noise levels are greater than 60 dB Ldn and up to 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a +3 dB Ldn increase in roadway noise levels will be considered significant; and

- Where existing traffic noise levels are greater than 65 dB Ldn at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB Ldn increase in roadway noise levels will be considered significant.
- N-1.7 Work with Caltrans to ensure that adequate noise studies are prepared and alternative noise mitigation measures are considered in State transportation projects.
- N-1.8 Support noise-compatible land uses along Highway 99 / S Tehama St, and Interstate 5.
- N-1.9 Regional and pass-thru truck traffic shall comply with Chapter 10.40 of the Willows Municipal Code (Truck Routes).
- N-1.10 Work cooperatively with the Glenn County Airport Land Use Commission to minimize noise impacts from airspace activities in Willows, such as airplane and helicopter flights.
- N-1.11 Temporary special events including, but not limited to, festivals, concerts, parades, and other similar activities may be allowed to exceed the noise standards established in this General Plan through approval and issuance of a special event permit.
- N-1.12 Temporary emergency operations or emergency equipment usage may be exempt from noise standard criteria set by this element.
- N-1.13 Require proposed developments in close proximity to rail lines (within 100 feet or less of the rail line measured from the property line of proposed development) to demonstrate that groundborne vibration and noise nuisance associated with rail operations have been adequately addressed and would not exceed the Federal Transit Administration guidelines prior to approving the development of sensitive uses.

Actions in Support of Goal N-1

- N-1a N-1a Require that new discretionary development projects to be reviewed for compliance with the noise requirements established in this element, including the standards established in Tables N-1 and N-2, and where necessary, require mitigation measures to achieve the noise standards. As applicable the City should:
- Require acoustical studies for new discretionary development projects which have the potential to generate noise impacts which exceed the standards identified in this element. The studies shall include representative noise measurements, estimates of existing and projected noise levels, and mitigation measures necessary to ensure compliance with the noise standards included in this element.
 - Require developers to prepare a construction management/noise mitigation plan that defines best management practices to reduce construction noise, and includes proposed truck routes as part of the entitlement process.
 - Provide for additional scrutiny of potential noise impacts when considering approval of new "late-night activities" (land use activities operating from 11:00 p.m. to 6:00 a.m., not including the lawful, reasonable and customary

3.12 NOISE

use of residential uses or professional offices that does not interfere with the reasonable use and enjoyment of other properties).

TABLE N-1: LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENT

Land Use Category	Exterior Noise Exposure (Ldn)					
	55	60	65	70	75	80
Single-Family Residential						
Multi-Family Residential, Hotels, and Motels						
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Public Assembly						
Office Buildings, Business, Commercial, and Professional						
Industrial						

Note: It is expected that some periodic peak noises from various agricultural operations which are common and established operations within the area may exceed the above desired ambient levels.

	<p>NORMALLY ACCEPTABLE</p> <p>Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements</p>
	<p>CONDITIONALLY ACCEPTABLE</p> <p>Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design</p>
	<p>UNACCEPTABLE</p> <p>New construction or development should generally not be undertaken because mitigation was found to be infeasible to comply with noise element policies</p>

TABLE N-2: STATIONARY (NON-TRANSPORTATION) NOISE SOURCE STANDARDS

Land Use Receiving the Noise	Hourly Noise-Level Descriptor	Exterior Noise-Level Standard (dBA)	
		Daytime (7am – 10pm)	Nighttime (10pm- 7am)
Residential	L _{eq}	55	45
	L _{max}	70	65

Notes:

a) The residential standards apply to all properties that are zoned for residential use. The exterior noise level standard is to be applied at the property line of the receiving land use or at a designated outdoor activity area. For multi-family and mixed-use projects, the exterior noise level standard may be waived (at the discretion of the decision-making body) if the residential portion of the project does not include a designated activity area and mitigation of property line noise is not practical.

b) Each of the noise levels specified above shall be lowered by 5 dBA for tonal noises characterized by a whine, screech, or hum, noises consisting primarily of speech or music, or recurring impulsive noises. In no case shall mitigation be required to a level that is less than existing ambient noise levels, as determined through measurements conducted during the same operational period as the subject noise source.

c) In situations where the existing noise level exceeds the noise levels indicated in the above table, any new noise source must include mitigation that reduces the noise level of the noise source to the existing level plus 3 dB.

Impact 3.12-2: General Plan implementation may result in exposure to excessive railroad noise sources (Less than Significant)

Table 3.12-4 indicates that the 60 dBA L_{dn} railroad noise contours for the CNFR line may extend up to 55 feet from the railroad centerline. Future development located along these railroad lines could therefore be exposed to unacceptable exterior noise levels.

Specifically, Policies N-1.1 and N-1.5 support noise-compatible land uses in the vicinity of railroad noise sources and require that new development and infrastructure projects be reviewed for consistency with the noise standards established in Tables N-1 and N-2. The proposed General Plan standards required under Policy N-1.2, for exposure to railroad noise meet or exceed the noise level standards of the adopted General Plan. Policy N-1.13 and Actions N-1a would ensure that new development mitigates potential noise impacts through incorporating the noise control treatments necessary to achieve acceptable noise levels.

Implementation of these General Plan policies and actions would ensure that development allowed under the proposed General Plan is not exposed to noise levels associated with railroad operations in excess of the City’s established standards. This is a **less than significant** impact.

Impact 3.12-3: Implementation of the General Plan could result in the generation of excessive stationary noise sources (Less than Significant)

Implementation of the General Plan could result in the future development of land uses that generate noise levels in excess of applicable City noise standards for non-transportation noise sources. Such land uses may include commercial area loading docks, industrial uses, HVAC equipment, car washes, daycare facilities, auto repair, and recreational uses. While the General Plan does not specifically propose any new noise generating uses, the Land Use Map includes industrial land use designations, which may result in new noise sources. Specific land uses that would be located in the city are not known at this time. Additionally, noise from existing stationary sources, as identified in the background section of this chapter, will continue to impact noise-sensitive land uses in the vicinity. New projects which may include stationary noise sources such as automotive

and truck repair facilities, tire installation centers, car washes, loading docks, corporation yards, parks, and play fields may create noise levels in excess of the City's standards.

While no specific projects are proposed under the general plan update, changes in land use zoning may allow for more intensive noise-generating uses in closer proximity to noise-sensitive uses. Where this occurs, detailed noise studies would be required to ensure that noise control measures are implemented into the project design. Such measures could include facing loading docks of industrial buildings away from sensitive uses, construction of sound walls or berms between loading docks and sensitive uses, using buildings to create additional buffer distance and screening, or other site design measures to ensure that non-transportation (stationary) noise sources do not cause exterior noise levels to exceed allowable standards at sensitive receptors.

For example, a typical busy loading dock for a warehouse might generate noise levels of approximately 66 dBA L_{eq} at a distance of 100 feet, as shown in Table 3.11-5. This would exceed the City's proposed stationary noise standards of 55 dBA L_{eq} (daytime) and 45 dBA L_{eq} (nighttime). Construction of a 12-foot-tall sound wall would reduce loading dock noise levels to approximately 53 dBA L_{eq} (Appendix D-1). For a daytime use loading dock, this would be sufficient to meet the City's 55 dBA L_{eq} daytime noise standard. For a loading dock which requires nighttime operation, a sound wall would not be sufficient to achieve the 45 dBA L_{eq} nighttime noise standard. To achieve the nighttime noise standard, the distance from the loading dock would need to be increased to 250 feet for the 12-foot-tall wall to achieve the 45 dBA L_{eq} nighttime standard (Appendix D-2). Alternatively, the loading docks could face internal to the project site and the industrial building could be used to screen loading dock noise. In this case the loading dock could be located 150 feet from a sensitive receptor, assuming it was screened by a 20-foot-tall building (Appendix D-3). This would achieve the City's 45 dBA L_{eq} nighttime noise standard. While this is just a theoretical scenario, it illustrates that use of site design measures, screening walls, etc. can be sufficient to achieve compliance with the City's stationary noise standards, even when more intensive uses are proposed in closer proximity to sensitive receptors.

The General Plan includes policies and actions that are intended to reduce noise associated with stationary sources. Specifically, Policies N-1.1 through N-1.6 and Action N-1a would reduce noise associated with stationary sources. Implementation of the proposed policies and actions of the General Plan will reduce noise impacts from stationary noise sources to a **less than significant** level.

Impact 3.12-4: General Plan implementation may result in an increase in construction noise sources (Less than Significant)

New development, maintenance of roadways, and installation of public utilities and infrastructure generally require construction activities. These activities include the use of heavy equipment and impact tools. Table 3.12-12 provides a list of the types of equipment which may be associated with construction activities, and their associated noise levels.

TABLE 3.12-12: CONSTRUCTION EQUIPMENT NOISE

TYPE OF EQUIPMENT	PREDICTED NOISE LEVELS, LMAX DB				DISTANCES TO NOISE CONTOURS (FEET)	
	NOISE LEVEL AT 50'	NOISE LEVEL AT 100'	NOISE LEVEL AT 200'	NOISE LEVEL AT 400'	70 dB LMAX CONTOUR	65 dB LMAX CONTOUR
Backhoe	78	72	66	60	126	223
Compactor	83	77	71	65	223	397
Compressor (air)	78	72	66	60	126	223
Concrete Saw	90	84	78	72	500	889
Dozer	82	76	70	64	199	354
Dump Truck	76	70	64	58	100	177
Excavator	81	75	69	63	177	315
Generator	81	75	69	63	177	315
Jackhammer	89	83	77	71	446	792
Pneumatic Tools	85	79	73	67	281	500

Source: Roadway Construction Noise Model User's Guide. Federal Highway Administration. FHWA-HEP-05-054. January 2006. Saxelby Acoustics, LLC 2019.

Activities involved in construction would typically generate maximum noise levels ranging from 85 to 90 dB at a distance of 50 feet. Construction could result in periods of significant ambient noise level increases and the potential for annoyance. However, the proposed General Plan includes policies and actions that are intended to reduce noise associated with construction noise (listed below). Specifically, Action N-1b would reduce noise associated with construction noise. Implementation of the proposed policies and actions of the General Plan will ensure noise impacts from construction are **less than significant**.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

N-1b Update the Municipal Code to include the following construction noise best practices and requirements:

- *Establish standards for when a construction staging and phasing plan shall be required for new development projects and significant remodels.*
- *At all times during project grading and construction, stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from residences.*
- *Unnecessary idling of internal combustion engines shall be prohibited.*
- *Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction activities, to the extent feasible.*

- *The construction contractor shall designate a “noise disturbance coordinator” who will be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall be responsible for determining the cause of the noise complaint (e.g., starting too early, poor muffler, etc.) and instituting reasonable measures as warranted to correct the problem. A telephone number for the disturbance coordinator shall be conspicuously posted at the construction site.*

Impact 3.12-5: General Plan implementation may result in exposure to excessive aircraft noise sources (Less than Significant)

Implementation of the General Plan could result in the creation of new noise-sensitive land uses within the 60 dB CNEL noise contours contained within the Willows-Glenn County Airport Comprehensive Land Use Plan, as shown by Figure 3.12-2. Additionally, the implementation of the 2030 General Plan may result in the creation of new noise-sensitive land uses within over-flight areas of the Willows Airport, thereby presenting the potential for annoyance from single event noise.

Single-event noise associated with aircraft overflights is also of concern when evaluating aircraft noise effects in terms of land use compatibility. Single-event noise is the maximum sound level produced by an individual approach overflight at a specific location, often described in terms of L_{max} , which is the maximum sound level recorded for each event. A different measurement is single-event noise, also commonly used when evaluating aircraft noise, is the SEL. The SEL describes the event’s mean energy level over the duration of the noise event. As would be expected, single-event noise levels for aircraft overflights within the Planning Area would be greatest and most frequent near the airport’s primary flight paths.

General Plan Policies N-1.1 through N-1.5, and Action N-1a, identified below, are intended to minimize exposure to excessive noise, including noise associated with aircraft noise sources. Specifically, Policies N-1.1 through N-1.5 support noise-compatible land uses in the vicinity of aircraft noise sources and require that new development projects be reviewed for consistency with the noise standards established in Tables N-1 and N-2. The proposed General Plan standards required under Policy N-1.3, for exposure to aircraft noise meet or exceed the noise level standards of the adopted General Plan.

The General Plan includes policies and actions intended to reduce noise impacts throughout the County. With the implementation of the General Plan policies and actions, the noise impact relative to airports would be **less than significant**.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

Policies

- | | |
|-------|---|
| N-1.1 | Consider the noise compatibility of existing and future development when making land use planning decisions. |
| N-1.2 | Require development projects and changes to existing uses to be consistent with the standards indicated in Table N-1 to ensure acceptable noise levels for existing and future development. |

- N-1.3 Require new development to reduce excessive noise to the standards indicated in Tables N-1 and N-2 through best practices, including building location and orientation, building design features, placement of noise-generating equipment away from sensitive receptors, shielding of noise-generating equipment, placement of noise-tolerant features between noise sources and sensitive receptors, and use of noise-minimizing materials.
- N-1.4 Ensure that new development does not result in indoor noise levels exceeding 45 dBA Ldn for residential uses by requiring the implementation of construction techniques and noise reduction measures for all new residential development.
- N-1.5 Require acoustical studies for new noise-generating and noise-sensitive developments, and transportation improvements that would increase roadway capacity, move traffic closer to sensitive receptors.
- N 1.10: Work cooperatively with the Glenn County Airport Land Use Commission to minimize noise impacts from airspace activities in Willows, such as airplane and helicopter flights.

Actions in Support of Goal N-1

- N-1a Require that new discretionary development projects to be reviewed for compliance with the noise requirements established in this element, including the standards established in Tables N-1 and N-2, and where necessary, require mitigation measures to achieve the noise standards. As applicable the City should:
- Require acoustical studies for new discretionary development projects which have the potential to generate noise impacts which exceed the standards identified in this element. The studies shall include representative noise measurements, estimates of existing and projected noise levels, and mitigation measures necessary to ensure compliance with the noise standards included in this element.

Impact 3.12-6: General Plan implementation may result in construction vibration (Less than Significant)

Construction activities facilitated by the proposed General Plan may include demolition of existing structures, site preparation work, excavation of below grade levels, foundation work, pile driving, and new building erection. Demolition for an individual site may last several weeks and at times may produce substantial vibration. Excavation for underground levels may also occur on some project sites and vibratory pile driving could be used to stabilize the walls of the excavated area. Piles or drilled caissons may also be used to support building foundations.

While typical construction vibrations are not predicted to cause damage to existing buildings or cause annoyance to sensitive receptors located further than 25-feet, should pile driving be required within 50 feet of an existing structure, these impacts may be considered significant. With implementation of Action N-2d below would ensure that construction vibrations do not cause damage to any adjacent structures, and thus, the proposed project would result in a **less than significant** impact relative to this environmental topic.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

N-2d: If pile driving is required within 50 feet of an existing structure, pre-construction crack documentation and construction vibration monitoring shall be conducted to ensure that construction vibrations do not cause damage to any adjacent structures. The results of the documentation and monitoring shall be submitted to the City Community Development Department prior to the start of construction activities which would occur within 50 feet of an existing structure.

Impact 3.12-7: General Plan implementation may result in exposure to groundborne vibration (Less than Significant)

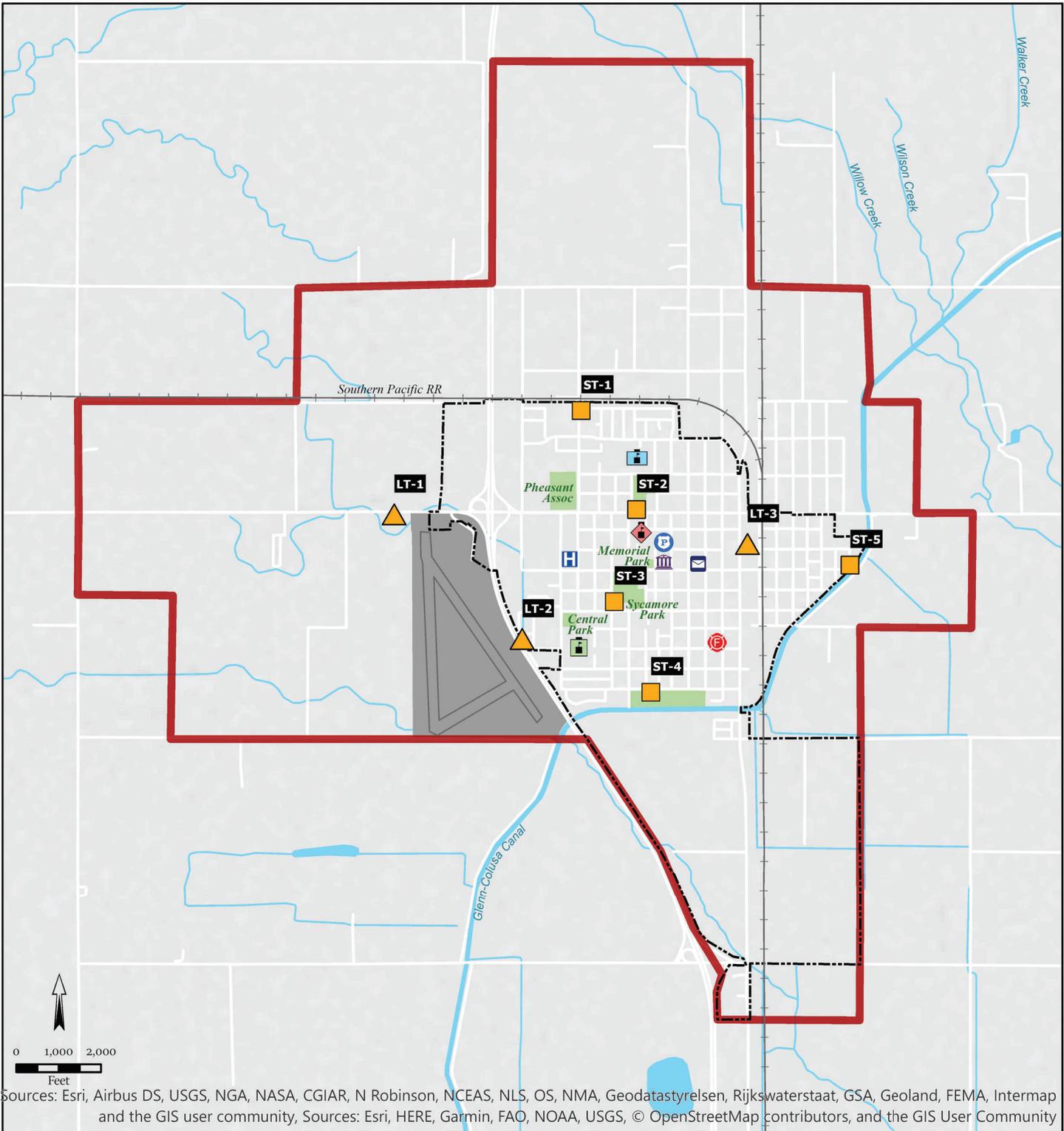
Development facilitated by the General Plan could expose persons to excessive groundborne vibration levels attributable to trains. The proposed locations of buildings and their specific sensitivity to vibration are not known at this time; however, such uses located in close proximity to railroad tracks could be exposed to ground vibration levels exceeding FTA guidelines.

The proposed General Plan includes Policy N 1.13 which requires that individual development projects undergo project-specific environmental review and address potential vibration impacts associated with railroad operations. If project-level significant vibration impacts are identified, specific mitigation measures will be required under CEQA. The implementation of this policy would limit potential groundborne vibrations associated with railroad operations to a **less than significant** level.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

ACTIONS

N 1.13: Require proposed developments in close proximity to rail lines (within 100 feet or less of the rail line measured from the property line of proposed development) to demonstrate that groundborne vibration and noise nuisance associated with rail operations have been adequately addressed and would not exceed the Federal Transit Administration guidelines prior to approving the development of sensitive uses.



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, NMA, Geodatasystyrelsen, Rijkswaterstaat, GSA, Geoland, FEMA, Intermap and the GIS user community, Sources: Esri, HERE, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

Sources: Glenn County; CalAtlas; Google Maps. Map date: May 22, 2019.

LEGEND

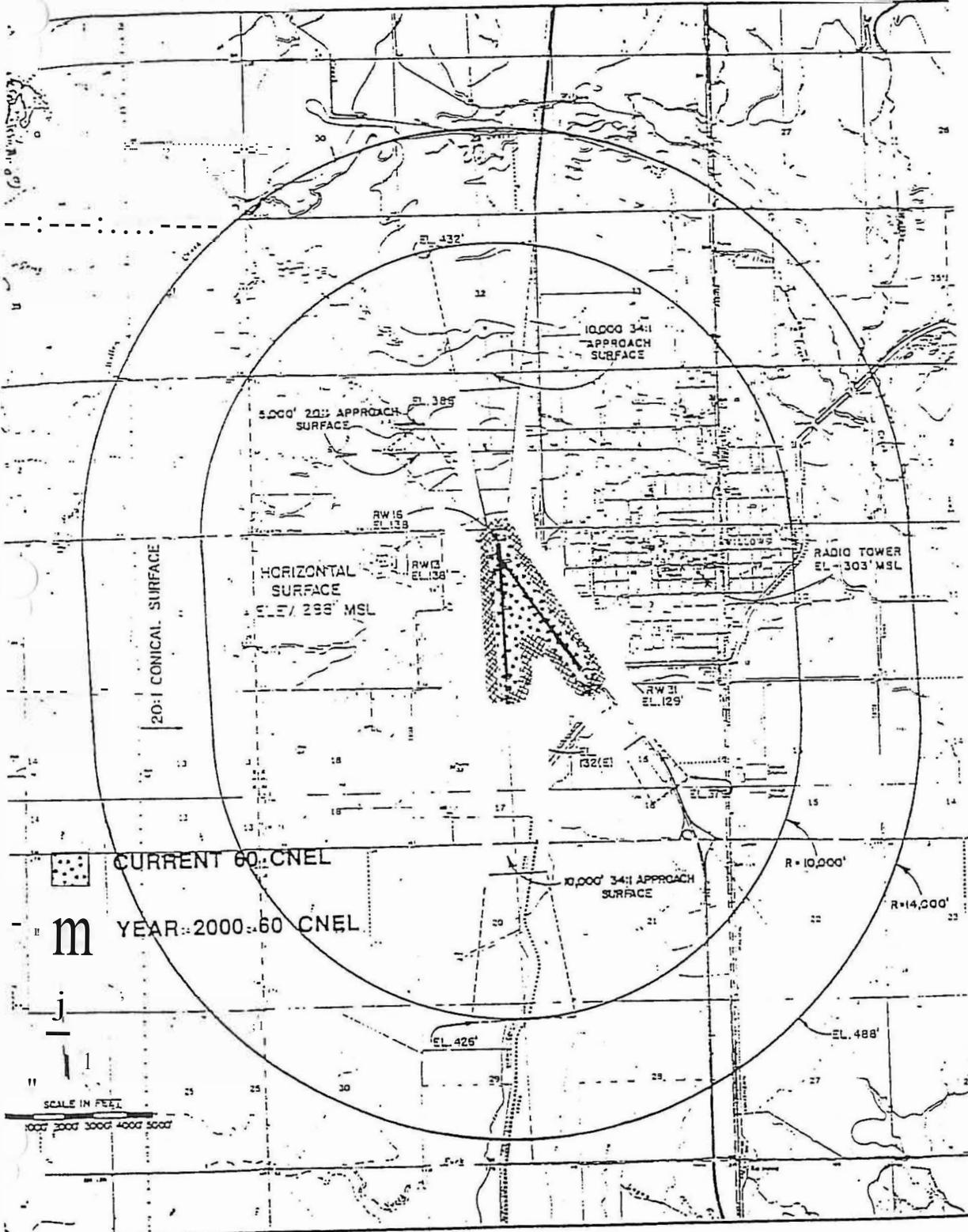
- City of Willows
- Willows Sphere of Influence
- Park
- Willows-Glenn County Airport
- Murdock Elementary School
- Willows Intermediate School
- Willows High School
- Glenn-Willows Medical Center
- Fire Department
- Police Department/Library/City Hall
- Memorial Hall
- US Post Office
- Noise Measurement Sites - Short Term
- Noise Measurement Sites - Long Term

FIGURE 3.12-1 Noise Measurement Locations

CITY OF WILLOWS

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MAP #3
 CURRENT AND YEAR 2000 60dBA CNEL NOISE CONTOURS



WADELL ENGINEERING CORPORATION

COUNTY OF GLENN, CALIFORNIA

FIGURE 3.12-2 Willows-Glenn County Airport Noise Contours

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Public services such as fire and police protection are vital to maintaining a safe and healthy community. Educational services serve as a foundation for providing citizens with the skills and resources to excel today and in the future. There are many other public services that are important to a community, such as parks and recreational opportunities, libraries, museums, hospitals, and other healthcare facilities.

This section provides a background discussion and analysis of fire protection services, police services, schools, parks and recreational facilities, libraries, and other community facilities and services. This section is organized with an existing setting, regulatory setting, and impact analysis.

Utilities services, including water, sewer, and solid waste disposal are addressed in Chapter 3.15 (Utilities and Service Systems) of this Draft EIR.

No comments were received during the NOP comment period regarding this environmental topic.

3.13.1 ENVIRONMENTAL SETTING

FIRE PROTECTION SERVICES

The Willows Fire Department is responsible for fire suppression, emergency medical services, rescue services, coordination of City-wide disaster response efforts, enforcement of fire and life safety codes, enforcement of State and Federal hazardous materials regulations, and investigation of fire cause, arson and other emergency events for cause and origin.

Willows Fire Department

Willows Fire Department provides fire suppression, hazard materials first responder, rescue and Basic life support services.

The Operations Division is responsible for the following:

- **Suppression-** Individual fire companies are specially trained to respond to residential fires, commercial fires, industry related incidents, wildland fires and vehicle extrications.
- **Emergency Medical Services-** Medical service is provided at a Basic Life Support function through trained Emergency Medical Technician (EMT) and First Responders. The department is non transport, with our primary transport Advanced Life Support (ALS) unit provided by Enloe Medical Center from Willows, and secondary transport by West Side Ambulance from Orland.

The Fire Prevention Division provides the following services:

- **Code Enforcement-** inspections of public and private properties for unabated hazardous and/or combustible fuels (including weeds) which would allow a fire to travel from property to property.
- **Inspections-** annual inspection per fire code on commercial occupancy, licensed daycare and adult care facilities-on site inspections of commercial tenant improvement and new construction.

3.13 PUBLIC SERVICES AND RECREATION

- **Plan Review-** review of construction plans and specifications for compliance with local and state requirements.
- **Fire Investigation-** determining the origin and cause of fire and the investigations of fire related incidents. This function is divided among several members of Willows Fire department whom have had specialized training. These members are also part of the Glenn County Bomb and Arson Task Force.

The WFD employs 4 full time (career) personnel, 28 volunteer firefighters, 10 warden company members and 12 Auxiliary personnel. Daily staffing is 1 engineer, providing round-the-clock immediate service, and a fire chief who works a 40 hour schedule. The City of Willows Fire Department and the Willows Rural Fire Protection district are supported by a volunteer force, who provide firefighting service for both the City and Rural Departments. Response times of the Willows Fire Department average 4 minutes per call.

Fire engine types are placed into category types that are used in the Incident Command System, and as a means of organizing multiagency resources through the National Interagency Fire Center. The City and the Rural District maintain a variety of fire apparatus and equipment in order to meet the public safety need of our service area that includes major highways and streets, undeveloped residential/commercial and wildland areas.

- Willows Fire Department: two type 1 engines, one quint aerial ladder and two staff vehicles.
- Willows Rural Fire Protection District: two type 3 engines, one type 6 fire engine one water tender, and specialty air cascade trailer

Other specialty trailers include:

- Aux Trailer- Owned by the Willows Fire Department Auxiliary.
- Arson and Bomb- Owned by Glenn County Office of Emergency Services.

The Willows Fire Department Auxiliary provides firefighting rehabilitation service during major incidents and assists with fund raising for the department.

The WFD boundaries spread over about 78 square miles. The location of the existing WFD fire station is presented in Figure 3.13-1.

The WFD responds, not only to fires of all types, but also medical emergencies, traffic accidents, and river rescues. The WFD is an active member of the Glenn County Bomb and Arson team ran out of the Willows Fire station. All fires are investigated to determine their cause and origin (City of Willows, 2019).

Fire investigation is a vital function of the WFD fire service. Several members of the WFD have received specialized training in fire origin and cause determination (City of Willows, 2019).

Willows Rural Fire Protection District

The Willows Rural Fire Protection District includes the area around the City of Willows in unincorporated Glenn County; which has a population of approximately 3,000, and covers approximately 78 square miles. The Willows Rural Fire Protection District utilizes the Willows Fire Department station which is responsible for the emergency response activities for the City of Willows and surrounding communities. They offer a vast range of emergency services, public relations and fire safety education. The Fire District responds not only to fires of all types, but also medical emergencies, traffic accidents, and river rescues.

ISO Rating

The Insurance Services Office (ISO) rating measures individual fire protection agencies against a national Fire Suppression Rating Schedule which includes such criteria as facilities and support for handling and dispatching fire alarms, first-alarm responses and initial attack, and adequacy of the local water supply for the fire suppression purposes. ISO ratings are on a scale of 1-10 with 1 being the highest rating. In 2013, ISO developed split classifications for some communities, which can represent the risk of loss more precisely. An example of a split classification system is 4/4X or 4/4Y. The first number refers to the classification of properties within 5 road miles of a fire station and within 1,000 feet of a creditable water supply. The second number, with either the X or Y designation, applies to properties within 5 road miles of a fire station but beyond 1,000 feet of a creditable water supply. ISO generally assigned Class 10 to properties beyond 5 road miles.

WILLOWS FIRE DEPARTMENT

According to the Willows Fire Department 2016 Annual Fire report, the ISO Public Classification Program rates the WFD as a community classification of 3 for the City of Willows- the lowest (best) in Glenn County.

WILLOWS RURAL FIRE PROTECTION DISTRICT

According to the Willows Fire Department 2016 Annual Fire report, the ISO Public Classification Program rates the Willows Rural Fire Protection District as a community classification of 6 for the District.

POLICE PROTECTION SERVICES

Law enforcement services in the City of Willows are provided through contract with the Glenn County Sheriff's Department. The Sheriff's Department also operates the County Jail, Dispatch, County Coroner and the County Office of Emergency Services (OES). The Glenn County Sheriff's office operates out of its headquarters located at 543 W. Oak Street, Willows and the jail is located adjacent at 141 S. Lassen Street, Willows. The Sheriff's Department also provides 24-hour dispatching services for the municipal police departments.

Organization

The Glenn County Sheriff's office is composed of three (3) divisions: Operations, Support Services, and Jail. The Sheriff and Undersheriff are responsible for the administration and oversight of the division commanders.

OPERATIONS DIVISION

The Operations Division consist of Uniformed Patrol and Special Operations, which includes Traffic, Boating Enforcement, Police Aides/Assistants, Civil Unit, Court Security Unit, and Animal Control Unit. The operations Division in commanded by a lieutenant, and there are currently 3 sergeants, 1 detective, 11 deputies, 2 county service officers, 1 bailiff, 1 service clerk, and 4 public service employees assigned to the division.

SUPPORT SERVICES DIVISION

The Support Services Division consist of the major crimes unit, narcotics unit (G1.N.T.F.), evidence and property management, internal affairs, emergency services, volunteer services, communications, records, and clerical. The Support Services Division is commanded by a lieutenant, and there are currently 1 Administrative Services Officer, 3 detectives, 2 deputies, 1 California Highway Patrol Officer, 4 emergency dispatchers, 3 services clerks, and 3 public service employees assigned to the division.

JAIL DIVISION

The Jail Division consist of the Glenn County Jail facility and transportation unit. The Jail Division is currently commanded by an acting lieutenant, and there are 1 correctional sergeant, 4 correctional corporals, 15 correctional officer, 1 food manager, 1 cook, 1 service clerk, 1 supervising secured facilities maintenance technician, and a contracted medical unit assigned to the division.

Crimes by Category in Glenn County

Because the City of Willows contracts law enforcement services through the Glenn County Sheriff's Office, statistics on the number of crimes by category of crime in Glenn County during the year 2017, as reported by the Federal Bureau of Investigation (FBI) Criminal Justice Information Services Division, are shown in Table 3.13-1 below.

TABLE 3.13-1: GLENN COUNTY SHERIFF'S OFFICE CRIME STATISTICS (2017)

CATEGORY/CRIME	2017
Total Violent Crimes	81
Homicide	0
Rape	5
Robbery	6
Assault	70
Total Property Crimes	235
Burglary	100
Auto Theft	123
Larceny	12
Arson	2

SOURCE: FBI CRIME STATISTICS; [HTTPS://UCR.FBI.GOV/](https://ucr.fbi.gov/).

As shown in the table, the majority of crimes committed in Glenn County consist of property crimes, primarily motor vehicle theft. Additionally, in 2017, there were no homicides reported in Glenn County.

PARKS AND RECREATIONAL FACILITIES

Parks and recreational facilities in the City of Willows are managed and maintained by the Recreation Department. The City of Willows Recreation Department website was the primary source of information for this section. Figure 3.13-1 identifies the City's parks.

Types of Parks

Community parks: Community parks are generally 15 to 25 acres in size, and include areas for active sports as well as space for family and group activities, such as picnicking. Community parks are larger in size than neighborhood parks and serve to fulfill the active and passive recreational needs of multiple neighborhoods. The community park serves the needs of local neighborhoods by providing a close to home site for more active recreation that is not typically suitable or physically possible in a neighborhood park (i.e. formal sports fields and courts with night lighting). Community parks and sports parks are where most organized activities provided by the Parks and Recreation Department and various league sports are intended to occur.

Neighborhood parks: Neighborhood parks serve as the focal point of neighborhood communities, the hub for both physical and social activities in a recreational setting that should be primarily passive. Appropriately designed neighborhood parks act as “pulse points” within the city. They are spaces that develop a sense of place while at the same time evolve to reflect the neighborhood they represent. Neighborhood parks act as critical building blocks of the city's image and assist in developing an overall sense of community and security. They also serve as critical nodes and access points in the city-wide green space network. Neighborhood parks are generally 5 to 7 acres. Amenities at neighborhood parks may include open multi-uses spaces, basketball, volleyball, bocce ball, and tennis courts, small picnic areas, playground equipment, restroom facilities, water play features, and barbeques.

Special use parks: The Special Use Parks allow for flexibility in providing recreational resources throughout the city-wide park space network. This classification is intended to accommodate special circumstances, unique site characteristics, etc. in park, trail, and recreation resources. These types of resources add diversity to the park network and accommodate a variety of non-traditional recreation amenities beyond the standard neighborhood, and community, park classifications.

City Parks

The City currently maintains four public facilities, managed by the City of Willows Recreation Department. The location of parks within the City is shown on Figure 3.13-1. Table 3.13-2 summarizes the City's parks and facilities.

TABLE 3.13-2: SUMMARY OF PARKS & RECREATION DEPARTMENT PARKS AND FACILITIES

<i>PARK/FACILITY NAME</i>	<i>ADDRESS</i>	<i>FACILITY TYPE</i>
Central Park	1150 West Laurel Street	Park
Jensen	380 Elm Street	Park
Sycamore Park	800 West Sycamore Street	Park
Willows Swimming Pool	815 Laurel Street	Park

SOURCE: CITY OF WILLOWS RECREATION, 2019

On a regional scale, there are currently four federal park facilities close to the City of Willows, including Mendocino National Forest and the Sacramento National Wildlife Refuge. The Forest offers a variety of recreational opportunities both in Glenn County and in adjacent counties, including camping, backpacking, boating, fishing, hunting, and off-highway vehicle use. There are two designated wildernesses: the 100,600 acre Yolla Bolly Middle Eel Wilderness, and the Snow Mountain Wilderness with approximately 37,200 acre.

The Sacramento National Wildlife Refuge is located south of the City of Willows adjacent to Interstate 5, of which approximately 8,555 acres located in Glenn County. The facility provides a wintering area for migratory waterfowl.

SCHOOLS

Most schools within the City of Willows are part of the Willows Unified School District (MUSD). The WUSD provides school services for grades kindergarten through 12 (K-12) within the City of Willows. Within the City of Willows, there is an elementary school (Murdock Elementary), one middle school (Willows Intermediate School) and two high schools (Willows High School and Willows Community High School). Willows has one charter elementary school (Walden Academy), located within the Glenn County Office of Education School District. Table 3.13-3 lists schools in Willows and the most recent enrollment for each school.

As shown in Table 3.13-3, the schools in the City had a total enrollment of approximately 1,648 students, of which 1,167 were enrolled in elementary and middle school (grades K – 8) and 481 were enrolled in high school (grades 9 – 12).

District-wide, WUSD Schools had a total enrollment of 1,465 students for the 2018-2019 school year.

3.13 PUBLIC SERVICES AND RECREATION

TABLE 3.13-3: PUBLIC SCHOOLS SERVING WILLOWS

SCHOOL	GRADES SERVED	ADDRESS	ENROLLMENT 2018-2019 SCHOOL YEAR
Murdock Elementary	K-5	655 French Street	619
Walden Academy	K-8	1149 West Wood Street	183
Willows Intermediate School	6-8	1145 West Cedar Street	365
Total			1,167
Willows High School	9-12	203 North Murdock Avenue	466
Willows Community High School	10-12	823 West Laurel Street	15
Total			481

SOURCES: CALIFORNIA DEPARTMENT OF EDUCATION EDUCATIONAL DEMOGRAPHICS UNIT ENROLLMENT FOR 2018-19

OTHER PUBLIC FACILITIES

Willows Public Library

The Willows Public Library is located at 201 North Lassen Street. The Willows Public Library offers computer workstations for Internet and word processing use, a ready reference collection, and a circulating collection of popular materials in English and Spanish. Items include books, magazines, audiobooks, large print books, DVDs, and music CDs. In addition to the main library in Willows, there are branches in Bayliss and Elk Creek that serve the surrounding community. The Willows Public Library is open Tuesday through Thursday, from 11:00 to 7:00 PM, and Friday and Saturday from 11:00 to 5:00 PM.

Health Care

Health care facilities within Willows encompass Glenn General Hospital located in the City of Willows, Willows Care Center, residential care facilities, as well as private physicians and other medical practitioners.

Glenn General Hospital, a County operated hospital, provides acute care service for Willows and the surrounding community. The hospital is located at 1133 West Sycamore in the City of Willows. Glenn General Hospital offers 24-hour emergency care, outpatient care, general surgical care, outpatient surgical care, and minor heart surgery. The hospital sponsors an orthopedic clinic, a urology clinic, a cardiology clinic, podiatry clinic, gastroenterology clinic, neurology clinic, and obstetric-gynecology clinic.

Residents typically travel to other facilities, such as Enloe Hospital in Chico, for certain specialized services including burns, major heart surgery, and severe trauma and psychiatric care.

The Glenn County Public Health Department is organized under the Glenn County Health Services Agency and provides maternal and child health care programming, California Children's Services,

child health and disability programs, vaccinations and general public health nursing to the community. Alcohol & drug programs are also organized under the County Health Service Agency and provide residential treatment, out-patient counseling, perinatal programs and community education and information. Mental Health programs offered by the same agency provide services to citizens of all ages who have a demonstrated mental disorder or affective disorder. Services include but are not limited to in-patient services, residential services, out-patient counseling, medication monitoring and community education and referral.

3.13.2 REGULATORY SETTING

FEDERAL

There are no Federal regulations applicable to the environmental topics of public services and recreation.

STATE AND LOCAL

Fire Protection and Emergency Response

CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

In accordance with California Code of Regulations Title 8 Sections 1270 "Fire Prevention" and 6773 "Fire Protection and Fire Equipment" the California Occupational Safety and Health Administration (Cal/OSHA) has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance, and use of all firefighting and emergency medical equipment.

EMERGENCY RESPONSE/EVACUATION PLANS

The State passed legislation authorizing the Office of Emergency Services (OES) to prepare a Standard Emergency Management System (SEMS) program, which sets forth measures by which a jurisdiction should handle emergency disasters. Non-compliance with SEMS could result in the State withholding disaster relief from the non-complying jurisdiction in the event of an emergency disaster.

FIRE PROTECTION

The California Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. Topics addressed in the Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions to protect and assist first responders, industrial processes, and many other general and specialized fire safety requirements for new existing buildings and premises.

CALIFORNIA FIRE CODE (CFC)

The CFC with the State of California Amendments contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the California Fire Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The Fire Code contains specialized technical regulations related to fire and life safety.

CALIFORNIA HEALTH AND SAFETY CODE

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code. This includes regulations for building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

Parks and Recreation**QUIMBY ACT**

The Quimby Act (California Government Code Section 66477) states that “the legislative body of a city or county may, by ordinance, require the dedication of land or impose a requirement of the payment of fees in lieu thereof, or a combination of both, for park or recreational purposes as a condition to the approval of a tentative or parcel map.” Requirements of the Quimby Act apply only to the acquisition of new parkland and do not apply to the physical development of new park facilities or associated operations and maintenance costs. The Quimby Act seeks to preserve open space needed to develop parkland and recreational facilities; however, the actual development of parks and other recreational facilities is subject to discretionary approval and is evaluated on a case-by-case basis with new residential development. The City has adopted park fees as allowed by the Quimby Act, as described in greater detail below.

CITY OF WILLOWS MUNICIPAL CODE

The Willows Municipal Code contains ordinances regulating park fees within the City of Willows. Chapter 19.05 provides for the City’s Impact Fee Ordinance, which requires development impact fees to be charged to fund improvements to the City’s infrastructure. Chapter 19.05.030 allows the City Council to authorize the adoption of fees for recreation programs and for the use of park facilities for non-city functions, and provides other provisions related to parks within the City of Willows.

Schools**CALIFORNIA CODE OF REGULATIONS**

The California Code of Regulations, Chapter 4.9, Payment of Fees, Charges, Dedications, or Other Requirements Against a Development Project. *Section 65995-65998 (h)* The payment or satisfaction of a fee, charge, or other requirement levied or imposed pursuant to Section 17620 of the Education Code in the amount specified in Section 65995 and, if applicable, any amounts specified in Section 65995.5 or 65995.7 are hereby deemed to be full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073, on the provision of adequate school facilities.

3.13 PUBLIC SERVICES AND RECREATION

CALIFORNIA DEPARTMENT OF EDUCATION

The California Department of Education (CDE) School Facilities Planning Division (SFPD) prepared a School Site Selection and Approval Guide that provides criteria for locating appropriate school sites in the State of California. School site and size recommendations were changed by the CDE in 2000 to reflect various changes in educational conditions, such as lowering of class sizes and use of advanced technology. The expanded use of school buildings and grounds for community and agency joint use and concern for the safety of the students and staff members also influenced the modification of the CDE recommendations.

Specific recommendations for school size are provided in the School Site Analysis and Development Guide. This document suggests a ratio of 1:2 between buildings and land. CDE is aware that in a number of cases, primarily in urban settings, smaller sites cannot accommodate this ratio. In such cases, the SFPD may approve an amount of acreage less than the recommended gross site size and building-to-ground ratio.

Certain health and safety requirements for school site selection are governed by state regulations and the policies of the SFPD relating to:

- Proximity to airports, high-voltage power transmission lines, railroads, and major roadways;
- Presence of toxic and hazardous substances;
- Hazardous facilities and hazardous air emissions within one-quarter mile;
- Proximity to high-pressure natural gas lines, propane storage facilities, gasoline lines, pressurized sewer lines, or high-pressure water pipelines;
- Noise;
- Results of geological studies or soil analyses; and
- Traffic and school bus safety issues.

THE KINDERGARTEN-UNIVERSITY PUBLIC EDUCATION FACILITIES BOND ACT OF 2002 (PROP 47)

This act was approved by California voters in November 2002 and provides for a bond issue of \$13.05 billion to fund necessary education facilities to relieve overcrowding and to repair older schools. Funds will be targeted at areas of greatest need and must be spent according to strict accountability measures. Funds will also be used to upgrade and build new classrooms in the California Community Colleges, the California State University, and the University of California in order to provide adequate higher education facilities to accommodate growing student enrollment.

LEROY F. GREENE SCHOOL FACILITIES ACT OF 1998 (SB 50)

The “Leroy F. Greene School Facilities Act of 1998,” also known as Senate Bill 50 or SB 50 (Chapter 407, Statutes of 1998), governs a school district’s authority to levy school impact fees. This comprehensive legislation, together with the \$9.2 billion education bond act approved by the voters in November 1998 known as “Proposition 1A”, reformed methods of school construction financing in California. SB 50 instituted a new school facility program by which school districts can apply for state construction and modernization funds. It imposed limitations on the power of cities and

counties to require mitigation of school facilities impacts as a condition of approving new development and provided the authority for school districts to levy fees at three different levels:

- Level I fees are the current statutory fees allowed under Education Code 17620. This code section provides the basic authority for school districts to levy a fee against residential and commercial construction for the purpose of funding school construction or reconstruction of facilities. These fees vary by district for residential construction and commercial construction and are increased biannually.
- Level II fees are outlined in Government Code Section 65995.5, allowing school districts to impose a higher fee on residential construction if certain conditions are met. These conditions include having a substantial percentage of students on multi-track year-round scheduling, having an assumed debt equal to 15–30 percent of the district’s bonding capacity (percentage is based on revenue sources for repayment), having at least 20 percent of the district’s teaching stations housed in relocatable classrooms, and having placed a local bond on the ballot in the past four years which received at least 50 percent plus one of the votes cast. A Facility Needs Assessment must demonstrate the need for new school facilities for unhoused pupils is attributable to projected enrollment growth from the construction of new residential units over the next five years.
- Level III fees are outlined in Government Code Section 655995.7. If State funding becomes unavailable, this code section authorizes a school district that has been approved to collect Level II fees to collect a higher fee on residential construction. This fee is equal to twice the amount of Level II fees. However, if a district eventually receives State funding, this excess fee may be reimbursed to the developers or subtracted from the amount of state funding.

3.13.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on public services and recreation if it would result in:

- Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which 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; and
 - Other public facilities.
- An increase in the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- If it includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

IMPACTS AND MITIGATION MEASURES

Impact 3.13-1: General Plan implementation could result in adverse physical impacts on the environment associated with the need for new governmental facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts (Less than Significant)

Development accommodated under the General Plan would result in additional residents and businesses in the City, including new residential, industrial, office, and commercial uses. As described in Chapter 2.0, buildout of the General Plan could yield a total of up to approximately 689 housing units and approximately 717,834 square feet of non-residential building square footage within the City Limits. Buildout of the General Plan could yield a total of approximately 137 to 411 housing units and approximately 68,399 square feet of non-residential building square footage within the Willows SOI.

Development and growth facilitated by the General Plan would result in increased demand for public services, including fire protection, law enforcement, schools, parks, libraries, and other public and governmental services. The General Plan includes policies and actions to ensure that public services are provided at acceptable levels and that the City will maintain and implement public facility master plans, in collaboration with appropriate outside service providers and other agencies, to ensure

compliance with appropriate regional, state, and federal laws and to provide efficient public facilities and services to Willows.

As the demand for services increases, there will likely be a need to address acceptable service ratios, response times, and other performance standards. New or expanded service structures (e.g., offices, maintenance and administrative buildings, schools, parks, fire facilities, libraries, etc.) will be needed to provide for adequate staffing, equipment, and appropriate facilities to serve growth in the city. Existing facilities may be expanded at their current location. New facilities may also be constructed. The Public Facilities (PF) and Services land use designations could accommodate new public facilities necessary to provide community services. There would likely be environmental impacts associated with the construction or expansion of the facilities needed to provide public services.

The General Plan does not propose or approve actual development projects, or the physical expansion of public facilities. As future development and infrastructure projects (including new governmental facilities) are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Such development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. Any future expansion of public facilities required by growth in the City would be required to be reviewed for site-specific impacts.

As previously stated, new facilities will be needed to serve growth contemplated in the General Plan. The environmental effect of providing the public services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan does not propose or authorize development nor does it designate specific sites for new or expanded public facilities. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be subject to CEQA review as appropriate.

The General Plan includes a range of policies and actions (listed below) to ensure that public services adequately accommodate growth, maintain community services and facilities, and that new development funds its fair share of services. Therefore, impacts related to the provisions and need for public facilities are **less than significant**.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

SAFETY ELEMENT POLICIES

SA 4.1: *Provide adequate funding for fire and law enforcement services, facilities and personnel to accommodate existing and future citizens' needs to ensure a safe and secure environment for people and property.*

SA 4.2: *Emphasize the use of physical site planning as an effective means of enhancing safety and preventing crime. Open spaces, landscaping, parking lots, parks, play areas and other public spaces should be designed with maximum feasible visual exposure to community residents.*

SA 4.3: *Ensure that fire and emergency medical services meet existing and future demand.*

SA 4.4: *Ensure that adequate water supplies are available for fire-suppression throughout the City.*

SA 4.5: *Support efforts to remedy any deficiencies in the water delivery system to ensure adequate fire-suppression flows.*

SA 4.6: *Require development to construct and fund all fire suppression infrastructure and equipment needed to provide adequate fire protection services.*

SA 4.7: *Promote fire safety through education and building design.*

SA 4.8: *Promote public outreach to increase community safety. Public outreach should include information related to defensible space and evacuation routes.*

SA 4.9: *Ensure development projects are reviewed for consistency with consistent with the Glenn County Multi-Jurisdiction Hazard Mitigation Plan.*

SAFETY ELEMENT ACTIONS

SA-4a: *As part of the development review process, consult with the Sheriff's Department in order to ensure that the project does not impair the provision of law enforcement services through inappropriate site design. The use of physical site planning as an effective means of preventing crime, including lighting, visibility, and video surveillance requirements shall be determined by the Department, where applicable.*

SA-4b: *As part of the development review process, consult with the Fire Department in order to ensure that development projects facilitate adequate fire services and fire prevention measures.*

SA-4c: *Continue to require all new development to be reviewed for consistency with the relevant State and local Fire Safe Regulations, and the most recently adopted fire code standards.*

SA-4d: *Work with Glenn County and other partner agencies to review and update local hazard plans including emergency operation plans, and the Glenn County, CA Multi-Jurisdiction Hazard Mitigation Plan to include an analysis of evacuation routes, fire breaks and other community needs.*

SA-4e: Seek funding from State, Federal, and other sources to assist in emergency management planning, including community education and outreach describing public procedures and evacuation routes in the event of an emergency or natural disaster.

SA-4f: Promote cooperation between the Willows Fire Department, Willows Rural Fire Protection District, and other countywide fire districts for training and mutual aid.

SA-4g: Review and require all projects to adhere to Municipal Code requirements to ensure adequate safety services. These include but are not limited to Chapter 19.05 (Impact Fee Ordinance), which requires development impact fees to be charged to fund improvements to the City's infrastructure. Chapter 2.25 (Fire Department) describes the duties of the municipal fire department and the responsibilities of the fire chief in determining imminent health and safety hazards, and the powers associated with such a determination. Chapter 17.25 (Improvements) describes the requirements of a subdivider to provide and connect water mains and fire hydrants to Cal Water's water system.

Impact 3.13-2: General Plan implementation may result in adverse physical impacts associated with the deterioration of existing parks and recreation facilities or the construction of new parks and recreation facilities (Less than Significant)

Growth accommodated under the General Plan would include a range of uses that could increase the population of the City and also attract additional workers and tourists to the City. Such growth would result in increased demand for parks and recreation facilities. It is anticipated that over the life of the General Plan, use of parks, trails, and recreation facilities would increase, due to new residents and businesses. The additional demand on existing parks and recreational facilities would increase the need for maintenance and improvements. These improvements could have environmental impacts, although the exact impacts cannot be determined since the potential improvements are unknown.

The provision of new parks and recreation facilities would reduce the potential for adverse impacts and physical deterioration of existing parks and recreation facilities, by providing additional facilities to accommodate the demand for parks and recreation facilities. The General Plan Policy LU-6.3 requires all development projects to mitigate their infrastructure service impacts or demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired. Development under the General Plan would indirectly lead to the construction of new parks and recreation facilities to serve new growth and to meet existing parks and recreation needs. The General Plan supports the creation of new parks and recreation facilities, including new parks and trails, to accommodate a wide range of activities for all age groups. These new parks and recreation facilities would be spread throughout areas proximate to new development in and around existing neighborhoods.

Under the SB 1000 guidelines, the current distribution of park acreage per 1,000 residents for the entire City of Willows is an appropriate indicator of adequate park space and access. The California

3.13 PUBLIC SERVICES AND RECREATION

Statewide Park Program (Public Resources Code §5642) defines underserved communities as having a ratio of less than three acres of parkland per 1,000 residents. This measure identifies areas where surrounding population density may overwhelm limited park space. The city has approximately 26 acres of parkland. Therefore, with a 2019 population of approximately 6,243 the current distribution of park acreage per 1,000 residents is approximately 4.15, which is above the Statewide Park Program standard. General Plan Policy COS-2.3 establishes an overall citywide ratio of 5 acres of park land for every 1,000 residents. The deficit in park land may be currently offset with the recreational opportunities available in private parks and other nearby regional parks.

As shown in the Project Description (Table 2.0-2), the projected total buildout population (which includes existing plus projected population growth) is 8,864 people would result in a demand for additional developed parkland.

The proposed General Plan does not specifically propose any development projects, including parks. As a result, site-specific physical impacts of future park development and construction cannot be determined until future projects are brought forward for review. As future parks and recreation projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Parks and recreation projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

In addition to ensuring that new and expanded parks and recreation facilities are provided to accommodate new growth, the General Plan includes policies and actions to ensure that parks and recreation facilities are adequately maintained and improved to serve both existing and planned growth.

The proposed General Plan does not propose or approve any development nor does it designate specific sites for new or expanded parks and recreational facilities. The General Plan includes a range of policies and actions (listed below) to ensure that parks and recreational facilities are adequately funded, and that new development funds its fair share of services needed to meet General Plan objectives. New development is required to participate in the provision and expansion of public services, recreational amenities, and facilities, and is also required to demonstrate that the City's public services and facilities can accommodate the increased demand for said services and facilities associated with future projects during the entitlement process.

The proposed General Plan does not propose or approve the construction or expansion of parks or recreational facilities. Any new parks or recreational facilities that may be constructed in the future would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the parks and recreational facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be subject to CEQA review as appropriate.

Therefore, impacts related to the provisions and need for park and recreational facilities are **less than significant**.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

PARKS, RECREATION & OPEN SPACE POLICIES

COS 2.1: Ensure the provision of sufficient land that is well distributed and interconnected throughout the community for parks, trails, and recreation facilities.

COS 2.2: Recognize that some of the recreational resources available to City residents may be owned and/or operated by other entities, including the County and neighboring conservation areas and habitat preserves, while still meeting the recreational needs of Willows residents.

COS 2.3: Strive to achieve and maintain an overall citywide ratio of 5 acres of park land for every 1,000 residents.

COS 2.4: Support recreational activities, events, organized sports leagues, and other programs that serve broad segments of the community.

COS 2.5: Promote the development of a diverse network of parks, trails, and recreation facilities that support traditional and non-traditional recreational uses, and passive recreational opportunities.

COS 2.6: Encourage the provision and dedication of parkland within future development projects in order to ensure that the City maintains an extensive network of neighborhood parks that serve all areas of the community.

COS 2.7: Encourage community and volunteer efforts to assist in the maintenance and beautification of parks, trails, and recreation facilities in Willows

COS 2.8: Develop new parks, trails, and recreation facilities through developer fees in areas which are accessible and convenient to the community, prioritizing areas that are lacking these facilities.

COS 2.9: *Require new residential development to pay park impact fees to use for the acquisition and development of park land and recreational facilities, and update the fees periodically to ensure they reflect current costs of land acquisition.*

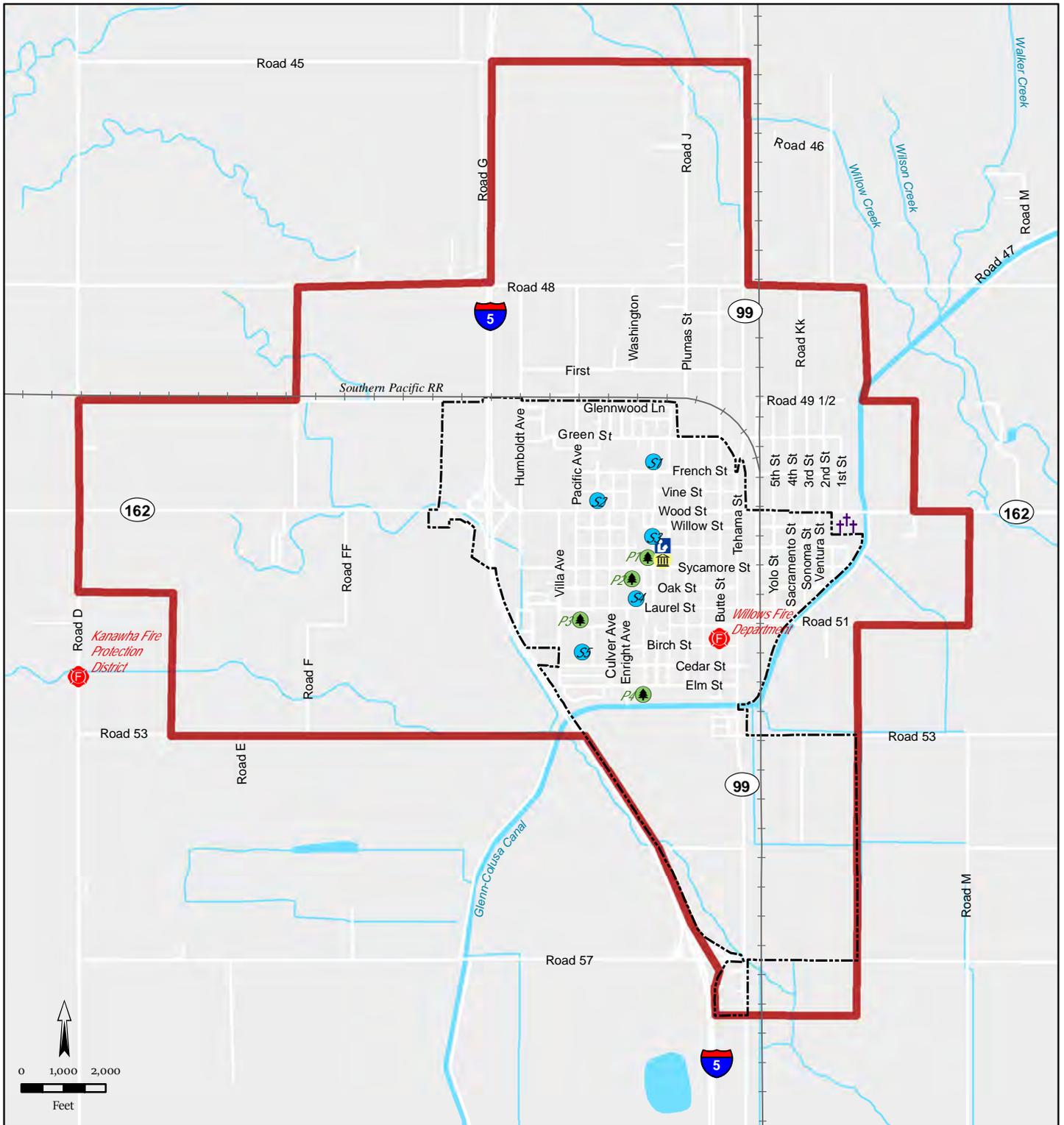
PARKS, RECREATION & OPEN SPACE ACTIONS

COS-2a: *Periodically evaluate open space, park and recreation facility acquisition opportunities.*

COS-2b: *Pursue all forms of possible funding, including Federal, State, County, private contributions, gifts and endowments, bond measures, and special districts, to assist in the acquisition, development and programming of park and recreation facilities.*

COS-2c: *Utilize park impact fees for the acquisition and development of parks and recreation facilities. Periodically review, and update as necessary, the City's Park and Recreational Facilities Impact Fees in order to ensure that new development continues to provide a fair-share contribution towards parks, trails, and recreation facilities.*

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Sources: USGS National Map; USGS Protected Areas Database; CalAtlas. Map date: October 18, 2019. Revised: January 14, 2020.

LEGEND

- City of Willows
- Willows Sphere of Influence

Community Facilities

- School
- 📖 Willows Public Library
- 🚒 Fire Station
- 🏛️ Willows Memorial Hall
- ⛪ Willows Cemetery
- 🌳 City Park

Parks	
P1	Willows Memorial Park
P2	Sycamore Park
P3	Central Park
P4	Jensen Park
Schools	
S1	Murdock Elementary School
S2	Walden Academy
S3	Willows High School
S4	Willows Community High School
S5	Willows Intermediate School

CITY OF WILLOWS
FIGURE 3.13-1. COMMUNITY FACILITIES

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This chapter describes the potential impacts to the roadway, transit, bicycle, and pedestrian components of the City's transportation system as well as roadway safety. To provide context for the impact analysis, this chapter begins with a discussion of the environmental setting, which is a description of the existing physical and operational conditions for the transportation system. Following the setting is the regulatory framework influencing the transportation system and providing the basis for impact significance thresholds used in the impact analysis. The chapter concludes with the impact analysis findings and recommended mitigation measures.

In compliance with the CEQA Guidelines, the analysis of each modal component and safety is based on applicable technical guidance and City of Willows decisions regarding methodology, impact thresholds, and feasible mitigation. Vehicle related impacts are based on the plan's changes to vehicle miles of travel (VMT), a measure of the total distance traveled by vehicles that have a trip starting or ending in Willows. Separate VMT impacts are evaluated for residential versus non-residential land uses based on VMT generation rates, which are also called efficiency metrics because they express VMT on per resident or per worker basis. Residential uses are evaluated with home-based VMT per resident and non-residential uses are evaluated with home-based work VMT per employee with the exception of retail land uses where total VMT is used. For transit, bicycle, and pedestrian system components, impacts are based on whether the plan will disrupt existing, or interfere with planned, facilities or services. Finally, for safety impacts, the plan's proposed transportation network changes are evaluated for consistency with applicable design standards. These standards are created to provide users with common expectations when using the transportation system to help minimize potential conflicts that could cause collisions.

No Transportation-related comments were received during the public review period for the Notice of Preparation.

3.14.1 ENVIRONMENTAL SETTING

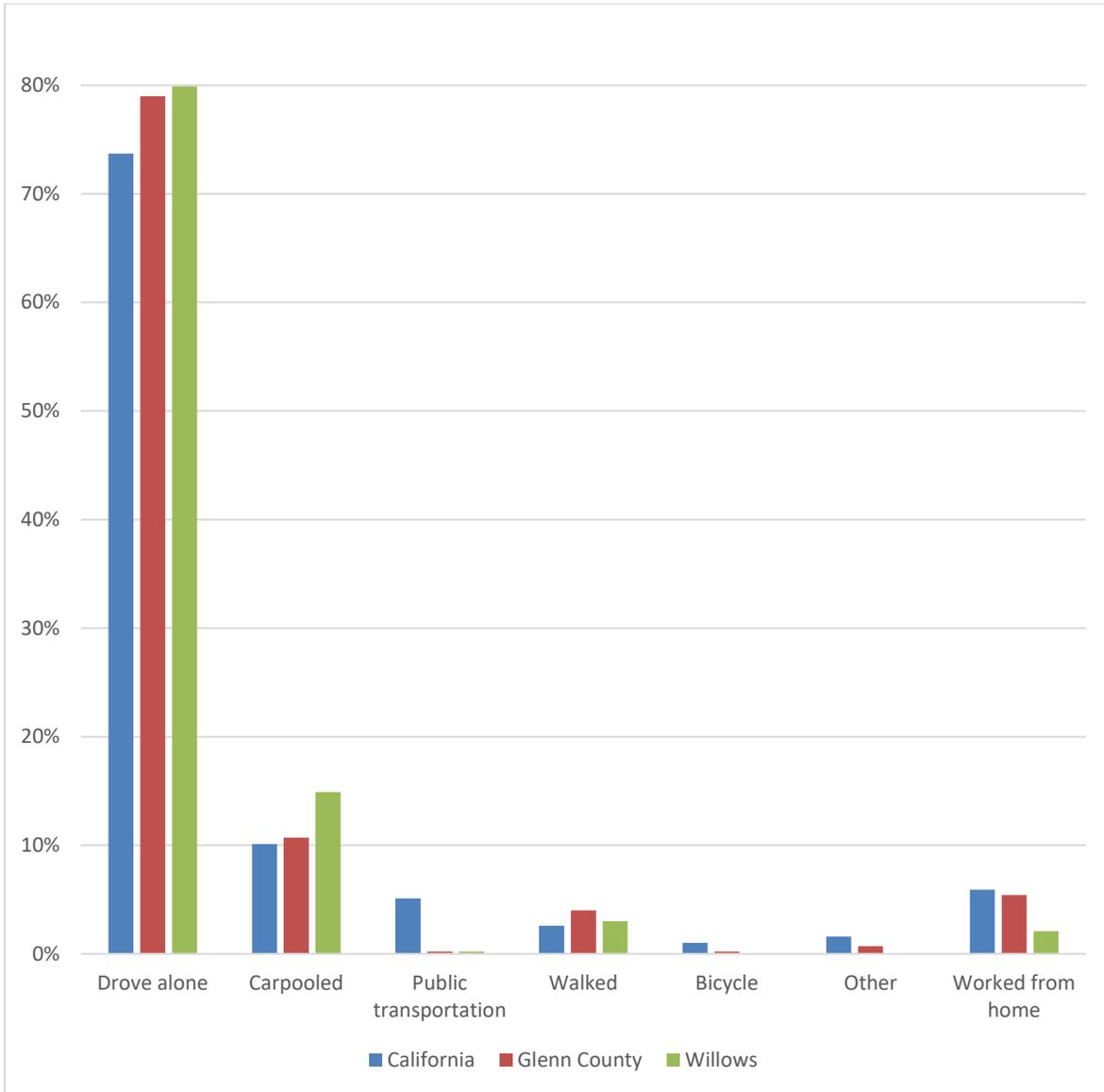
This section provides a contextual background to the City's existing transportation system, representing conditions prior to the onset of the COVID-19 pandemic. The pandemic caused substantial disruption to travel patterns and behavior, some of which has dissipated with the lifting of activity restrictions. However, some changes are expected to remain longer such as considering health risk when using modes that involve sharing of seats (e.g., transit or carpooling). The General Plan addresses the overall planning and development of the circulation system for moving people and goods in a multi-modal framework. Transportation system components include the roadway network, public transportation system, bicycle and pedestrian system, and goods movement.

The automobile is the most widely used mode of transportation in Willows. According to the U.S. Census Bureau, 2019 American Community Survey 5-Year Estimate, about 95 percent of City of Willows residents that work commute by car, truck, or van. Approximately 80 percent of City of Willows residents that work drove alone while 15 percent carpooled. About two percent of workers walk to work. Less than one percent take public transportation, bicycle, or use other means to get to work, and approximately 2 percent work at home. These percentages changed during the pandemic, with the biggest change occurring in people that work at home. According to data from

3.14 TRANSPORTATION AND CIRCULATION

the Household Pulse Survey conducted by the U.S. Census Bureau, the percentage of adults in households where at least one adult has substituted some or all of their typical in-person work for telework because of the coronavirus pandemic was over 40% in California in 2021 thus far¹, though Willows likely has a different balance of jobs that allow for telework than average in California.

CHART 3.14-1: METHOD OF TRANSPORTATION TO WORK



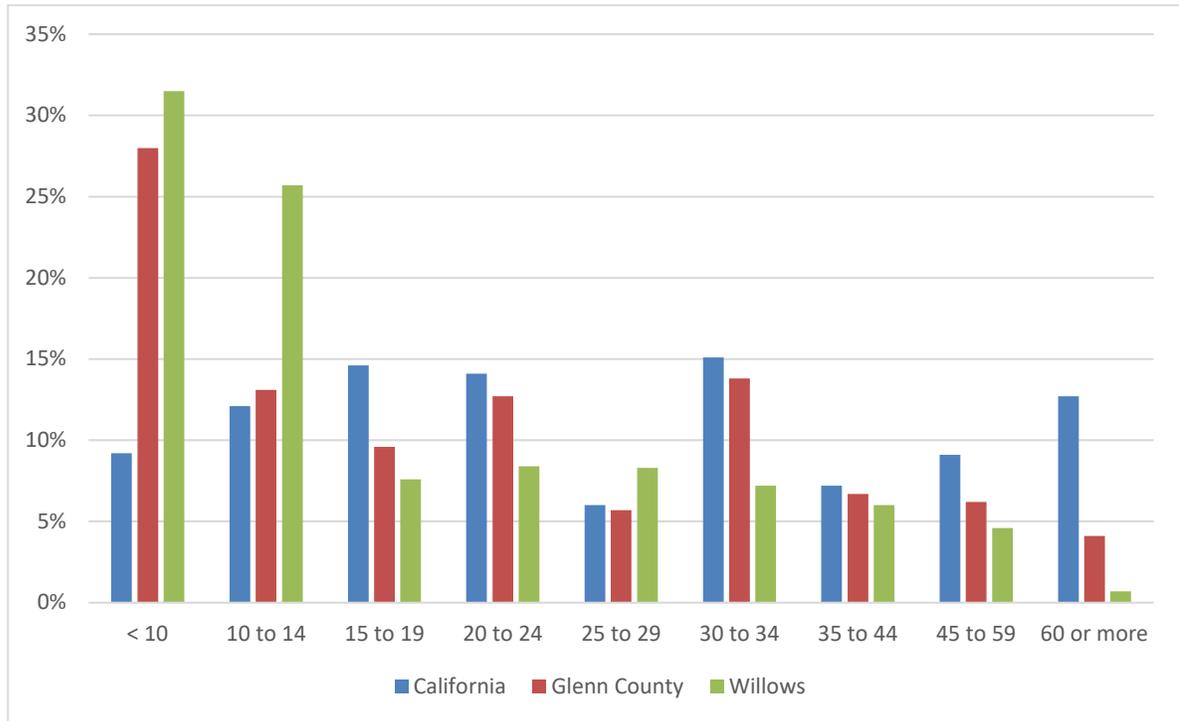
Source: American Community Survey, Census Bureau, 2015-2019.

Data from the 2019 American Community Survey 5-Year Estimate also shows the amount of time commuters take to get to work. Based on the data, about 57 percent of workers living in Willows

¹https://www.census.gov/data-tools/demo/hhp/#/?periodSelector=26&measures=TELEWORK&s_state=00006

traveled to work in under 15 minutes, 24 percent traveled to work in 15 to under 30 minutes, 13 percent traveled to work in 30 to under 45 minutes, and 5 percent traveled to work in 45 minutes or more. Average travel time to work was estimated to be 16 minutes. Commute times for Willows workers are shorter than for the state, where 56 percent travel to work in 29 minutes or less and the average travel time to work is 30 minutes.

CHART 3.14-2: TRAVEL TIME TO WORK (IN MINUTES)



Source: American Community Survey, Census Bureau, 2015-2019.

ROADWAY SYSTEM

This section describes the physical characteristics of Willow’s existing roadway network. Figure 3.14-1 shows the roadway classification system in Willows.

State Highways

Two highways operated and maintained by Caltrans pass through Willows, Interstate-5 (I-5) and State Route (SR) 162.

I-5 extends 796 miles in California, from the International Border Crossing at San Ysidro to the California/Oregon Border. I-5 is a critical transportation facility for California’s economy and the economy of the City of Willows. In Willows, I-5 is a four-lane north-south freeway that runs along the western city limit. I-5 has grade-separated interchanges that provide access to the following streets in Willows:

- Biggs-Willows Road/State Route 162
- County Road 57

SR 162 is an east-west highway running through the northern portion of the City. SR 162 connects Willows to the City of Oroville, sharing right-of-way with SR 45 and SR 99 for short segments. In Willows, SR 162 is four lanes between I-5 and 5th Street. SR 162 has a grade-separated interchange with I-5.

Arterials

Arterial streets are designed to serve through traffic and major local traffic generators such as residential, commercial, industrial, and institutional uses. Willows' arterials are described below:

Tehama Street County Road 99W is a two-lane, north-south roadway that extends through Glenn County and is known as Tehama Street in the City of Willows. It includes a center left-turn lane between Biggs-Willows Road and Sycamore Street and from Eureka Street to County Road 58, it is designated a Principal Arterial.

North Humboldt Avenue is a two-lane, north-south roadway that runs parallel to I-5 in northwest Willows. It includes a center left-turn lane for part of the segment between Green Street and Biggs-Willows Road (SR 162). Between Green Street and Sycamore Street it is designated a Minor Arterial.

Villa Avenue is a two-lane, north-south roadway. It includes parking on both sides of the street between Wood Street and Sycamore Street, where it is designated a Minor Arterial.

Lassen Street is a two-lane, north-south roadway. It includes parking on both sides of the street between Wood Street and Elm Street, where it is designated a Minor Arterial.

Sycamore Street is a two-lane, east-west roadway. It includes parking on both sides of the street between Villa Avenue and Tehama Street, where it is designated a Minor Arterial.

Laurel Street is a two-lane, east-west roadway. It includes parking on both sides of the street between South Villa Avenue and South Tehama Avenue, where it is designated a Minor Arterial.

Vehicle Miles Traveled

By definition, one vehicle mile traveled (VMT) occurs when one vehicle (regardless of number of occupants) is driven on a roadway for one mile. For the purposes of this EIR, VMT is typically estimated and projected for an average weekday. Many factors affect VMT, including the average distance residents commute to work, school, and shopping, as well as the proportion of trips that are made by non-automobile modes. Areas that have a diverse land use mix and ample facilities for non-automobile modes, including transit, tend to generate lower VMT than auto-oriented rural areas where residents travel long distances to/from work, school, and other amenities.

VMT is used to measure performance of the existing transportation network and to evaluate potential transportation impacts. VMT can be reported and analyzed as an absolute amount using a metric like total weekday VMT or an efficiency metric (also called a generation rate) such as VMT per capita. Efficiency metrics allow the VMT performance of different-sized projects or plans to be

compared. Such metrics provide a measure of travel efficiency and help depict whether different planning scenarios require more or less vehicle travel.

The City of Willows does not maintain a travel demand model that is capable of estimating or forecasting VMT so VMT efficiency metrics were estimated using the California Household Travel Survey (CHTS, 2012). Table 3.14-1 shows total VMT generated per capita and a subdivision of the total by trip purpose, for California, Glenn County, and the City of Willows. Home-based work trips involve travel direction between work and home locations. Home-based Other trips have at least one end of the trip at home while the other will typically involve a shopping, school, entertainment, restaurant, or recreation location. Non-Home Based trips occur away from the home, such as a trip from work to the grocery store.

TABLE 3.14-1: VMT PER CAPITA

<i>GEOGRAPHY</i>	<i>TOTAL</i>	<i>HOME-BASED OTHER</i>	<i>HOME-BASED WORK</i>	<i>NON-HOME BASED</i>
California	15.1	5.8	5.1	4.2
Glenn County	17.8	6.5	6.1	5.3
City of Willows	13.4	1.6	7.7	4.5

Source: California Household Travel Survey (2010-2012).

Total VMT per capita in the City of Willows is 13.4, with over half of the total represented by home-based work travel, reflecting the rural nature of the area where jobs are widely dispersed. For typical local trips like shopping, the relatively compact nature of Willows produces shorter trips than the average for Glenn County or California.

Using CHTS for VMT has its limitations. This data source only represents vehicle travel by residents. It does not include all VMT generated visitors, workers, and commercial vehicles that start or end trips in the City.. Finally, the data may not reflect travel behavior as it exists today, because a more recent household travel survey is not yet available.

PUBLIC TRANSPORTATION SYSTEM

The public transportation system in Willows includes bus transit, taxi, and ride sharing services.

Bus Transit Operations

The primary transit service in Willows is Glenn Ride, which provides seven round trips every weekday and three round trips on Saturday from Willows to Chico with service to Artois, Orland, and Hamilton City. Glenn Ride begins operation at the Glenn County Public Works Park & Ride, travels southward on Colusa Street and Sacramento Street, westward on Laurel Street and Sycamore Street, and north on Villa Avenue past Glenn Medical Center, and crosses t I-5/Biggs-Willows Road interchange to stop at Walmart and the Willows-Glenn County Airport before heading north on I-5 to Orland and then east on RS 32 to Chico.

Glenn Ride buses are equipped with accessible lifts and bicycle racks. While Glenn Ride is a fixed route transit service, users may also request deviations up to ¾ of a mile to drop them closer to their final destination.

Additional transportation assistance is provided to eligible residents through Dial-A-Ride and Volunteer Medical Transport. Seniors 60 years of age or older and those on Permanent Disability, or low income are eligible for Transit Service Cards to use these services.

Taxi and Ride Sharing Services

Taxi service in Willows is provided sporadically by private operators that serve the greater Glenn County area. Taxi service may be available seven days a week by calling in a service request to operators in Orland, Chico, and other larger cities.

Lyft and Uber provide connections to local and regional destinations. Availability varies depending on driver availability, and service may always not be available. Service is requested by smartphone apps for each provider.

BICYCLE AND PEDESTRIAN SYSTEM

This section describes the bicycle and pedestrian network in Willows.

Bicycle Facilities

Bicycle facilities are categorized into four types as described below.

- **Class I Bikeway (Bike Path):** Also known as a shared-use path or multi-use path, bike paths provide a completely separated right-of-way for the exclusive use of bicycles, pedestrians, and other non-motorized modes.
- **Class II Bikeway (Bike Lane):** Dedicated on-street, striped lane for one-way bicycle travel. Some may have painted buffers on one or both sides to provide space between bicyclists and moving traffic or parking cars.
- **Class III Bikeway (Bike Route):** Routes where the travel lane is shared by drivers and bicyclists. They are most suited for roadways with low traffic speeds and volumes, such as quiet residential streets. Some routes, called bicycle boulevards, may be enhanced with curb extensions or other traffic calming treatments to improve comfort for bicycling.
- **Class IV Bikeway (Separated Bikeway or Cycle Track):** On-street bicycle facilities that include physical protection from vehicle traffic. This separation might include a curb, on-street parking, flexible bollards, or concrete planters. Class IV bikeways may provide for one-way or two-way travel on each side of the roadway.

There are no Class I paths, Class III routes, or Class IV bikeways in Willows. There is currently one short segment of Class II bicycle lanes in Willows on SR 162, west of I-5, as shown in Figure 3.14-2.

The Glenn County Active Transportation Plan, adopted in June 2019, proposes bicycle facility improvements on segments of Laurel Street, Shasta Street, and Villa Ave.

Pedestrian Facilities

Pedestrian facilities include multi-use off-street paths, sidewalks, crosswalks, curb ramps, and streetscape amenities. Many streets in Willows lack several basic pedestrian amenities.

Sidewalks are provided in much of downtown Willows, though many sidewalk gaps exist at the periphery of the city. Marked crosswalks are present at few intersections in Willows. Some intersections have only one marked crosswalk, while others are marked on all legs.

Accessible curb ramps are provided at some intersections in Willows, largely in areas with more recently constructed sidewalks. Most locations lack curb ramps, including many marked crosswalks.

The Glenn County ATP, developed through a series of community workshops, proposes sidewalk gap closures and curb ramps, curb extensions, high visibility crosswalks, and other pedestrian infrastructure improvements throughout Willows.

GOODS MOVEMENT

Trucking is a major means of transportation for goods produced in Glenn County. Truck traffic accounts for a considerable portion of traffic on highways in Glenn County. On Interstate-5 truck traffic may account for as much as 28 percent of Average Annual Daily Traffic (AADT). For SR 32, SR 45, and SR 162, truck traffic accounts for approximately 5 to 20 percent of total AADT in some segments². Maintaining safe and efficient roadways for the movement of goods is an important issue in Glenn County where agriculture and industrial services make up a large portion of the local economy.

The Surface Transportation Assistance Act (STAA) of 1982 defines a network of state facilities as truck routes which accommodate large trucks. STAA routes have specific signage and are designed with street widths, curb return radii, and other features to accommodate STAA trucks, which have longer wheelbases than other trucks. Besides I-5, there are no STAA routes in Willows.

California Northern Pacific Railroad Company (CFNR) provides freight service through Glenn County. The CFNR Mainline tracks traverse the County parallel to I-5 and just east of Old Highway 99, running through the Cities of Willows and Orland. A small east-west branch line in Willows runs north of SR 162 connecting to the Johns Manville manufacturing facility on County Road 48. According to Federal Railroad Administration records, there are 23 locations where the CFNR lines cross public and private roads at-grade in Willows. About half of these crossings are unmarked, while the other half have railroad crossing advance warning signs. Only the crossing of the John Manville branch line and I-5 is grade-separated.

² <https://dot.ca.gov/programs/traffic-operations/census>

3.14.2 REGULATORY SETTING

The General Plan, along with a variety of City, regional, State, and Federal plans, legislation, and policy directives provide guidelines for the safe operation of streets and transportation facilities in Willows. While the City has primary responsibility for the maintenance and operation of local transportation facilities in its jurisdiction, Willows staff works on a continual basis with responsible regional, State, and Federal agencies including County of Glenn, the California Department of Transportation (Caltrans), the Federal Highway Administration, and others to maintain, improve, and balance the competing transportation needs of the community and the region. Federal, state, regional, and local laws or regulations applicable to analyzing transportation impacts of the general plan are described below.

FEDERAL

Americans With Disabilities Act

The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protections to individuals with disabilities. The goal of the ADA is to assure equality of opportunity, full participation, independent living, and economic self-sufficiency. To implement this goal, the United States Access Board has created accessibility guidelines for public rights-of-way. The guidelines address various issues, including roadway design practices, slope and terrain issues, pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way.

STATE

Senate Bill 743

SB 743, passed in 2013, resulted in several statewide CEQA changes. It required the California Governor's Office of Planning and Research (OPR) to establish new metrics for determining the significance of transportation impacts of projects within transit priority areas (TPAs) and allows OPR to extend use of the metrics beyond TPAs. OPR selected VMT as the preferred transportation impact metric and applied their discretion to require its use statewide. This legislation also established that aesthetic and parking effects of a residential, mixed-use residential, or employment center projects on an infill site within a TPA are not significant impacts on the environment. The revised CEQA Guidelines that implement this legislation became effective on December 28, 2018, and state that vehicle LOS and similar measures related to delay shall not be used as the sole basis for determining the significance of transportation impacts for land use projects and have applied statewide since July 1, 2020.

The OPR "Technical Advisory on Evaluating Transportation Impacts in CEQA" (December 2018) includes specifications for VMT methodology and recommendations for significance thresholds, screening of project that may be presumed to have less than significant impacts, and mitigation.

Screening criteria include:

- **Small projects:** The Technical Advisory concludes that, absent any information to the contrary, projects that generate 110 trips per day or less may be assumed to cause a less-than-significant transportation impact.
- **Projects near transit stations:** Projects located within ½ mile of an “existing major transit stop” or an “existing stop along a high-quality transit corridor” would have a less-than-significant impact on VMT.
- **Affordable residential development:** Projects consisting of a high percentage of affordable housing may be assumed to cause a less-than-significant transportation impact on VMT because they may improve jobs-housing balance and/or otherwise generate less VMT than market-based units.
- **Redevelopment projects:** If a proposed redevelopment project leads to a net overall decrease in VMT (when compared against the VMT of the existing land uses), the project would lead to a less-than-significant transportation impact.
- **Local-serving retail:** Trip lengths may be shortened and VMT reduced by adding “local-serving” retail opportunities that improve retail destination proximity. Page 17 of the Technical Advisory generally describes retail development including stores less than 50,000 square feet as local-serving. In May 2020, OPR staff indicated during online webinars that any retail building that is 50,000 square feet or less may be considered local-serving.

Other key guidance includes:

- VMT is the most appropriate metric to evaluate a project’s transportation impact.
- OPR recommends tour- and trip-based travel models to estimate VMT, but ultimately defers to local agencies to determine the appropriate tools.
- Lead agencies ultimately have the discretion to set or apply their own significance thresholds, provided they are based on significant evidence.
- Cities and counties can still use measures of delay such as LOS for other plans, studies, or network monitoring. However, according to CEQA section 15064.3, Determining the Significance of Transportation Impacts, “effect on automobile delay shall not constitute a significant environmental impact.”

California Air Resources Board Plans and Progress Reports

SCOPING PLAN-IDENTIFIED VMT REDUCTIONS AND RELATIONSHIP TO STATE CLIMATE GOALS

The California Air Resources Board (ARB) provides specific guidance for VMT thresholds in “Scoping Plan-Identified VMT Reductions and Relationship to State Climate Goals” (January 2019). This document provides recommendations for VMT reduction thresholds that would be necessary to achieve the state’s GHG reduction goals and acknowledges that the SCS targets alone are not sufficient to meet climate goals. ARB concluded that a 14.3-percent reduction in total VMT per capita and a 16.8 percent reduction in light-duty VMT per capita (over current conditions; 2015-2018) was needed to meet these goals. Additionally, the OPR “Technical Advisory” cites this document as support for the 15-percent reduction threshold.

California Department of Transportation Guides

VEHICLE MILES TRAVELED-FOCUSED TRANSPORTATION IMPACT STUDY GUIDE

The Caltrans “Vehicle Miles Traveled-Focused Transportation Impact Study Guide” (TISG), dated May 20, 2020, was prepared to provide guidance to Caltrans districts, lead agencies, tribal governments, developers, and consultants regarding Caltrans’ review of VMT impact analysis for land use projects and land use plans. Caltrans seeks to reduce single occupancy vehicle trips, provide a safe transportation system, reduce per capita VMT, increase accessibility to destinations via cycling, walking, carpooling, and transit, and reduce greenhouse gas (GHG) emissions. The TISG notes that, for land use projects and plans, automobile delay is no longer considered a significant impact on the environment under CEQA. Caltrans’ primary review focus for a land use project’s transportation impacts is now VMT. The TISG generally endorses the OPR “Technical Advisory,” including the thresholds in that document. Caltrans may review VMT thresholds, methodology, and mitigations.

INTERIM LAND DEVELOPMENT AND INTERGOVERNMENTAL REVIEW (LDIGR) SAFETY REVIEW PRACTITIONERS GUIDANCE

The Interim LDIGR Safety Review Practitioners Guidance (July 2020) was developed to provide immediate direction about the safety review of the state highway system while final guidance is being developed. This interim guidance does not establish thresholds of significance for determining safety impacts under CEQA. The guidance notes that the significance of impacts should be determined with careful judgment on the part of a public agency and based, to the greatest extent possible, on scientific and factual data consistent with Caltrans’ CEQA guidance contained in Caltrans’ Standard Environmental Reference. The guidance notes that District traffic safety staff will use available data to determine if the proposed project may influence or contribute to locations identified by traffic safety investigations generated by network screening or initiated by the district.

REGIONAL

Glenn County Regional Transportation Plan

The current Regional Transportation Plan (RTP) produced by the Glenn County Local Transportation Commission was adopted in 2020. The RTP serves as the backbone of transportation fiscal planning by providing capital program planning for all regional, state, and federally funded projects in the County. The RTP states that its focus is “developing a coordinated and balanced multi-modal regional transportation system... The balance is achieved by considering investment and improvements for moving people and goods across all modes including roads, transit, bicycle, pedestrian, trucking, railroad, and aviation.” The RTP also demonstrates compliance with air quality conformity requirements under the federal Clean Air Act.

Glenn County Active Transportation Plan

The 2019 Glenn County Active Transportation Plan (ATP) establishes goals and strategies for Glenn County as it moves forward with improving walking and bicycling. The envisioned system builds significantly upon a small system of existing on-street and off-street facilities throughout the County with enhancements to connectivity, safety, and education programs. The Plan establishes goals, identifies future infrastructure projects, and promotes support and educational programs.

The plan includes the following goals:

- **Connectivity:** Improve bicycle and pedestrian access to community destinations within Orland, Willows, and Hamilton City.
- **Safety:** Design and maintain bicycle and pedestrian facilities that are safe and accessible for people of all ages and abilities.
- **Programs:** Increase walking and bicycling through encouragement, education, enforcement, and evaluation programs.
- **Health:** Improve health and enhance quality of life through improved access to and increased use of bicycle and pedestrian facilities.

The Glenn County ATP includes important bicycle facility improvements in Willows such as Class II bike lanes on Villa Avenue, Laurel Street, and Tehama Street, as well as the closure of several sidewalk gaps. The plan also includes plans to add crossing improvements such as new high-visibility crosswalks and rectangular rapid flashing beacons.

LOCAL

The City of Willows General Plan

The Willows General Plan is a long-range comprehensive planning document required by state law to set policy and guide future growth, development, and conservation of resources. The last General Plan Circulation Element adopted by the City in 1981 and simply includes a map of roadway functional classifications. There were no stated goals or policies in the 1981 General Plan Circulation Element.

Willows Design and Construction Standards

The Willows Design and Construction Standards (September 2017) provide minimum specifications for improvements and private development projects to be accepted by the City for maintenance or operation. Section 1 includes street design standards, including geometrics, structural components, striping, and marking, and signing and barricades.

3.14.3 IMPACTS AND MITIGATION MEASURES

METHODS OF ANALYSIS

The transportation impact analysis assesses how implementation of the proposed General Plan would change the baseline conditions for the transportation system and whether those changes would constitute a significant impact under CEQA. The transportation impact analysis methodology includes a combination of quantitative and qualitative evaluations of the roadway, bicycle, pedestrian, and transit components of the transportation system. All analysis presumes that future background travel options and behaviors remain similar to current conditions and do not explicitly account for potential changes associated with disruptive trends, emerging technologies, and changes in travel choices.

THRESHOLDS OF SIGNIFICANCE

For the purposes of this EIR, adoption and/or implementation of the proposed General Plan would result in significant impacts under CEQA, if any of the following would occur:

- Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)
- Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access

Vehicle Miles Traveled

Based on Appendix G of the CEQA Guidelines, the General Plan would result in a significant transportation impact if it would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b), relevant portions of which are copied below.

(b) Criteria for Analyzing Transportation Impacts.

(1) Land Use Projects.

Vehicle miles traveled exceeding an applicable threshold of significance may indicate a significant impact. Projects that decrease vehicle miles traveled in the project area compared to existing conditions should be presumed to have a less than significant transportation impact.

(2) Transportation Projects.

Transportation projects that reduce, or have no impact on, vehicle miles traveled should be presumed to cause a less than significant transportation impact. To the extent that such impacts have already been adequately addressed at a programmatic level, such as in a regional transportation plan EIR, a lead agency may tier from that analysis as provided in Section 15152.

(3) Qualitative Analysis.

If existing models or methods are not available to estimate the vehicle miles traveled for the particular project being considered, a lead agency may analyze the project's vehicle miles

traveled qualitatively. Such a qualitative analysis would evaluate factors such as the availability of transit, proximity to other destinations, etc.

(4) Methodology.

A lead agency has discretion to choose the most appropriate methodology to evaluate a project's vehicle miles traveled, including whether to express the change in absolute terms, per capita, per household or in any other measure.

The City of Willows has not adopted a quantitative VMT threshold, in part, because the city does not have a method or model to estimate and forecast VMT. For purposes of this impact analysis, the city has opted to rely on a qualitative evaluation method and threshold as allowed in CEQA Guidelines § 15064.3, subdivision (b)(3). In addition to the specific factors listed above, assessing potential VMT impact significance considered the following guidance.

- *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Technical Advisory), California Governor's Office of Planning and Research (OPR) (December 2018).
- *Scoping Plan Identified VMT Reductions and Relationship to State Climate Goals*, California Air Resources Board (2017)

This guidance sets a general expectation that land use projects should generate automobile VMT per capita at a rate less than existing development. How much less ranges from 15-16.8 percent below existing or baseline levels. The OPR guidance does recognize that thresholds may vary based on land use context especially in rural counties. The specific recommendation for rural areas of non-MPO counties is to determine thresholds on a case-by-case basis and to recognize that the small towns in these counties tend to have lower VMT generation rates that isolate rural development.

Transit, Bicycles, and Pedestrians

Appendix G of the CEQA Guidelines indicates that impacts may be significant if a project conflicts with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. The proposed general plan would have a significant impact on transit, bicycles, or pedestrians if it disrupts an existing transit, bicycle, or pedestrian facility/service or would interfere with planned improvements to these transportation system components contained in adopted policies, plans, or programs regarding these systems.

Hazards

Appendix G of the CEQA Guidelines indicates that impacts may be significant if a project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). The proposed general plan would have a significant impact on hazards if it would cause any inconsistencies with applicable transportation design standards.

Emergency Access

Impacts may also be significant if a project results in inadequate emergency access. The proposed general plan would have a significant impact on emergency access if it would cause any inconsistencies with applicable transportation design standards or emergency response plans.

IMPACTS AND MITIGATION MEASURES

Impact 3.14-1: General Plan implementation may conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) (Significant and Unavoidable).

The City (and sphere of influence) is planned to grow to approximately 331 acres from 2020 to buildout. Growth projections during this period comprise of 689 dwelling units, 207,829 square feet of commercial (general and highway) development, 90,957 square feet of industrial (general and light) development, 395,966 square feet of commercial/industrial combined use, and 23,083 square feet of office development, as described in Chapter 2.0, Project Description. Planned growth in the City is mostly on the periphery, specifically along state routes and interstate highways.

Based on the Proposed Land Use Map (Figure 2.0-2), the Proposed General Plan would result in a similar or increased VMT per capita when compared to the existing (baseline) condition. This can be concluded based on the general plan land use designations for new job centers, such as industrial facilities and highway commercial being built on the periphery of town to the west, north, and south. The newly designated growth areas for multi-family residential are similarly far from the central city, though close to several job centers. As growth occurs on the periphery of the city, total VMT will increase and vehicle trip lengths may lengthen causing higher VMT per capita levels than that of existing development.

Furthermore, while the planned bike facilities and potential future transit improvements could improve safety and mobility, they are unlikely to decrease VMT given the general layout of Willows. Residents of Willows in the future will likely engage in similar travel patterns to existing residents based on planned land use, roadways, and alternative modes of transportation in the City, resulting in the absolute VMT of the City and increasing and the VMT per capita in Willows remaining similar to baseline in the planning horizon.

While the proposed general plan land use pattern is likely to produce similar VMT per capita levels as under existing conditions, the proposed general plan includes the following policies designed to reduce vehicle travel and VMT.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

LAND USE ELEMENT POLICIES

LU-1.1 Provide for a full range of land uses within the City that are conveniently located in proximity, and provide for commercial, public, and quasi-public uses that support and enhance the livability of neighborhoods.

LU-1.4 Encourage infill development and logical development patterns. The City should discourage leap-frog development and undue conversion of open space and agricultural lands, while also recognizing the Willows Urban limit line (established by Glenn County) to direct future development.

LU-2.7 Promote logical City boundaries and work with Glenn County to ensure and develop complementary and compatible uses adjacent to Willows.

LU-3.2 Encourage residential development to occur in a balanced and efficient pattern that reduces sprawl, preserves open space, and creates convenient connections to other land uses.

CIRCULATION ELEMENT POLICIES

CIRC-1.3 Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians, bicyclists, motorists, and public transit users of all ages and capabilities.

CIRC-1.6 Consider all transportation improvements as opportunities to improve safety, access, and mobility for all roadway users.

CIRC-2.1 Implement best practices to improve the pedestrian and bicycle environment.

CIRC-2.2 Consider walking and bicycling school access as a priority over vehicular movements when any such conflicts occur.

CIRC-2.3 Coordinate pedestrian and bicycle facility improvements and pavement improvement projects (e.g. repaving and restriping), to the greatest extent feasible and while taking into consideration potential secondary effects.

CIRC-2.4 Ensure that residents have convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.

CIRC-2.5 To support bicycle, pedestrian, and transit usage, provide amenities including pedestrian-scale lighting, bicycle parking, shade trees and landscaping, and bus shelters and benches.

CIRC-4.1 Support land use with increased densities and mixed uses, consistent with the Land Use Element, to reduce vehicle miles traveled and promote the use of walking, biking, and transit.

CIRC-4.2 Encourage employers to provide programs for carpooling/transit/biking/walking subsidies, bicycle facilities, ridesharing, telecommuting, and working at home.

CIRC-4.3 Monitor the deployment of new transportation technologies and services and develop policies that implement best practices to ensure these technologies and services benefit the public and the multimodal transportation system.

CIRCULATION ELEMENT ACTIONS

CIRC-1b Review and revise roadway standards for community and rural areas to ensure that the standards are adequate to accommodate complete streets, addressing the following factors as applicable: number of travel lanes, lane width, medians, drainage control, shoulder width, pavement striping and markings, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip, and sidewalk width.

CIRC-1c Where feasible, coordinate pedestrian and bicycle facility improvements with roadway maintenance activities so that they can be implemented in a cost-effective manner.

3.14 TRANSPORTATION AND CIRCULATION

CIRC-2a Implement and build on recommendations for pedestrian and bicycle improvements included in the Glenn County Active Transportation Plan (2019).

CIRC-2b Work with appropriate agencies to implement a regional bikeway system that connects the City to other communities, recreation destinations, and scenic areas in Glenn County.

CIRC-2c Pursue funding for construction and maintenance of bikeways and sidewalks, including off-road bikeways, where feasible.

CIRC-2d Add planned bicycle and pedestrian facilities in conjunction with road rehabilitation, reconstruction, or re-striping projects whenever feasible.

CIRC-2e Partner with Glenn Ride and other regional transit providers to conduct regular service reviews to advance convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.

CIRC-2g Consider alternatives to conventional bus systems, such as smaller shuttle buses (micro-transit), on-demand transit services, or transportation networking company services that connect residential communities to regional activity centers with greater cost efficiency.

CIRC-4a Adopt VMT thresholds and screening criteria for environmental impact analysis. Review and update those guidelines on a regular basis using updated data.

CIRC-4b Explore the feasibility of a VMT impact fee program to fund transportation demand management strategies that are proven to reduce VMT.

CIRC-4c Require proposed development projects that could have a potentially significant VMT impact to consider reasonable and feasible project modifications and other measures during the project design and environmental review stage of project development that would reduce VMT effects in a manner consistent with state guidance on VMT reduction.

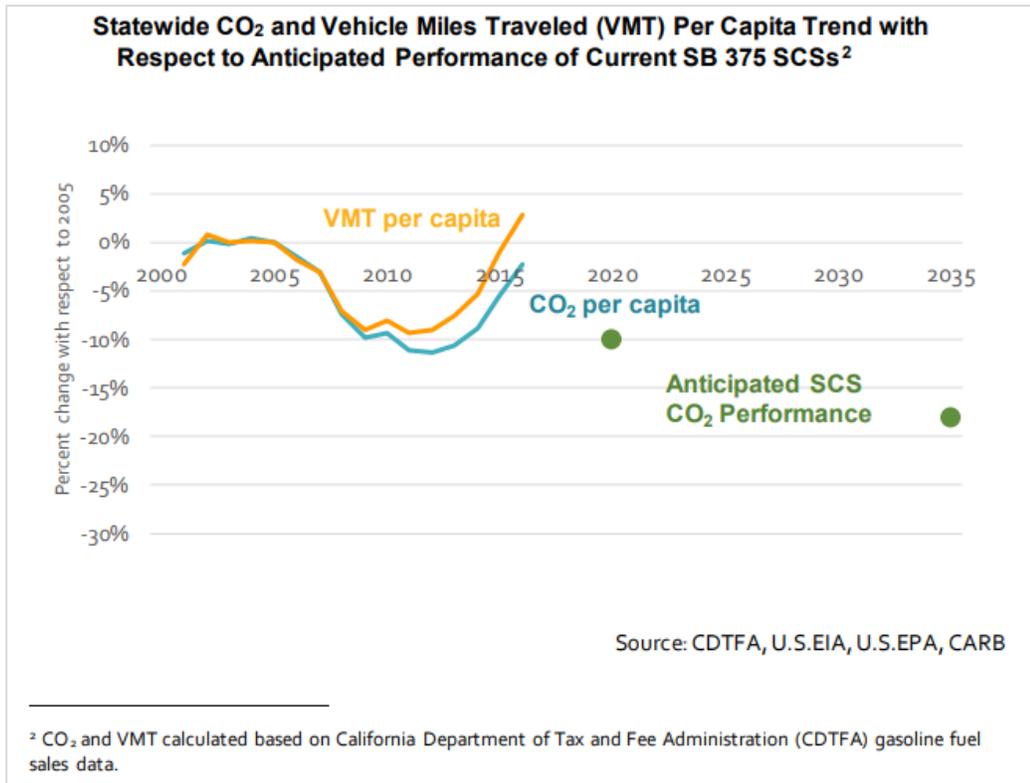
While the policies are supportive of actions that could dampen VMT growth, they do not contain sufficient changes to the built environment, the cost of using vehicles, or the convenience of using vehicles such that VMT per capita rates would be reduced below existing levels.

When making a final VMT impact determination, other available evidence related to VMT trends should be also be considered. This impact analysis identified the following two relevant studies.

- *2018 Progress Report, California's Sustainable Communities and Climate Protection Act, California Air Resources Board, November 2018 (referred to as the Progress Report in the remainder of this document).*
- *California Air Resources Board Improved Program Measurement Would Help California Work More Strategically to Meet Its Climate Change Goals, Auditor of the State of California, February 2021 (referred to as the Audit Report in the remainder of this document).*

The Progress Report measures the effect of SB 375 revealing that VMT and GHG per capita increased in California between 2010 and 2016 and are trending upward (see Chart 3.14-3 below).

CHART 3.14-3: VMT/CAPITA TRENDS



The Audit Report is a more recent assessment of ARB’s GHG reduction programs, which also found that VMT and its associated GHG emissions were trending upward through 2018. Per the audit, the state is not on track to achieve 2030 GHG reduction goals, and emissions from transportation have not been declining.

The evidence from these two reports suggests greater action on the part of the state may be needed to achieve the state’s GHG (and VMT) reduction goals. Without further action by the state to discourage vehicle travel (i.e., increasing the cost of driving) while reducing the barriers or constraints that prevent more efficient use of vehicles and greater use of transit, walking, and bicycling, VMT trends are unlikely to reverse.

Therefore, this impact is **significant**.

MITIGATION

Potential VMT reduction strategies contained in the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (California Air Pollution Control Officers Association, 2021) were reviewed for potential application to the updated general plan. While 28 specific strategies were identified, their use in a rural/suburban setting would diminish their potential effectiveness because of the long trip distances between land uses. Further, the land use element is reflective of the city’s desired land use pattern to accomplish other objectives of the general plan and to reflect the market realities of land use development demand in the city. Nevertheless, 16 of the strategies are applicable at the project site scale, under

3.14 TRANSPORTATION AND CIRCULATION

the general categories of land use changes, trip reduction programs, parking or road pricing/management, and clean vehicles/fuels improvements. Policy *CIRC-4c* above would require the city to potentially condition projects to implement feasible strategies from the list of 16 on a project-by-project basis. This would help lessen VMT growth but not to a level sufficient to reduce this impact to less than significant.

CONCLUSION

The implementation of the proposed General Plan would likely contribute to land use development that generates VMT per capita in excess of the levels necessary to meet State GHG reduction goals. Consistent with Policy *CIRC-4c*, the city will require new land use development projects to reduce VMT through feasible CAPCOA on-site VMT reduction strategies. Although larger changes in the proposed General Plan land use element could potentially reduce VMT further, those changes would also affect the achievement of other goals the City seeks to achieve with the General Plan. VMT reduction also depends on factors such as demographic change, household preferences for housing types and locations, the cost of fuel, and the competitiveness of regional transit relative to driving, which relates to congestion along vehicular commute routes that are not under the City's jurisdiction. Therefore, this impact is considered ***significant and unavoidable***.

This impact finding will generally govern future development projects consistent with the general plan. As such, the city plans to rely on CEQA Section 15183 to relieve subsequent land use projects of having to perform new VMT analysis. Instead, the city will require project developers to identify feasible CAPCOA on-site VMT reduction strategies to incorporate into the project design to lessen VMT growth.

Impact 3.14-2: General Plan implementation may conflict with a program, plan, policy or ordinance addressing the circulation system, including transit, bicycle, and pedestrian facilities (Less than Significant).

Implementation of the proposed general plan will not result in modifications to the transit, bicycle, or pedestrian network that would disrupt existing facilities/services or interfere with the implementation of planned facilities/services contained in adopted programs, plans, policies, or ordinances.

Several policies, including *CIR-2.1 "Implement best practices to improve the pedestrian and bicycle environment"* and *CIR-2.5 "To support bicycle, pedestrian, and transit usage, provide amenities including pedestrian-scale lighting, bicycle parking, shade trees and landscaping, and bus shelters and benches"* will help facilitate the development of improved facilities for walking, bicycling, and transit use.

Likewise, implementation of the proposed general plan would enable the City to improve bicycle and pedestrian programs and infrastructure consistent with the Glenn County Active Transportation Plan. The proposed general plan also contains additional policies and implementing actions that support accessibility and the provision of amenities to bicyclists and pedestrians (applicable policies and implementing actions are listed below).

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

LAND USE ELEMENT POLICIES

LU-5.1 Coordinate with regional agencies on planning, transportation, economic development and sustainability issues.

LU-5.2 Collaborate with Glenn County and other area jurisdictions on issues of mutual interest.

LAND USE ELEMENT ACTIONS

LU-5a Review public and private development proposals and land use changes within the City's Sphere of Influence (SOI) and Planning Area for consistency within the General Plan.

LU-5b Pursue a cooperative collaborative relationship during development of long range plans and review of development proposals that may impact the City. Coordinate with in order to ensure that planning and development decisions in adjacent Glenn County lands do not result in adverse impacts to Willows.

CIRCULATION ELEMENT POLICIES

CIRC-1.1 Provide a roadway network that is consistent with the planned improvements shown in Circulation Element Map (Figure CIRC-1).

CIRC-1.2 Roadway classifications shall be built to the standards defined by the Federal Highway Administration (FHWA) and Caltrans.

CIRC-2.1 Implement best practices to improve the pedestrian and bicycle environment.

CIRC-2.2 Consider walking and bicycling school access as a priority over vehicular movements when any such conflicts occur.

CIRC-2.3 Coordinate pedestrian and bicycle facility improvements and pavement improvement projects (e.g. repaving and restriping), to the greatest extent feasible and while taking into consideration potential secondary effects.

CIRC-2.4 Ensure that residents have convenient transit service to employment centers, County and City service centers, other government centers, and regional destinations (i.e., Sacramento International Airport), as funding allows.

CIRC-2.5 To support bicycle, pedestrian, and transit usage, provide amenities including pedestrian-scale lighting, bicycle parking, shade trees and landscaping, and bus shelters and benches.

CIRCULATION ELEMENT ACTIONS

CIRC-1b Review and revise roadway standards for community and rural areas to ensure that the standards are adequate to accommodate complete streets, addressing the following factors as applicable: number of travel lanes, lane width, medians, drainage control, shoulder width, pavement striping and markings, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip, and sidewalk width.

3.14 TRANSPORTATION AND CIRCULATION

CIRC-2a Implement and build on recommendations for pedestrian and bicycle improvements included in the Glenn County Active Transportation Plan (2019).

CIRC-2b Work with appropriate agencies to implement a regional bikeway system that connects the City to other communities, recreation destinations, and scenic areas in Glenn County.

CIRC-3a Adopt, maintain, and enforce a truck route map that identifies key goods movement corridors and ensures goods movement needs are adequately served while reducing impacts to other uses.

CIRC-3b Prominently sign all truck routes in accordance with the California Manual on Uniform Traffic Control Devices (MUTCD).

CIRC-3c Participate in intergovernmental activities related to regional and sub-regional transportation planning to advance travel efficiency of goods entering the region.

CIRC-3d Railroad crossings of State and county roads shall be marked, signalized, and gated where warranted by traffic volumes and required by the California Public Utility Commission (PUC).

CONCLUSION

Implementation of the proposed general plan will not disrupt existing transit, bicycle, or pedestrian facilities/services and its policies and actions listed above will help facilitate planned improvements such as those in the Glenn County ATP). Therefore, this impact is ***less than significant***.

Impact 3.14-3: General Plan implementation may increase hazards due to a design feature or incompatible uses (Less than Significant).

The proposed general plan would require any modifications to the existing transportation system to comply with applicable design standards. These design standards are created to provide users common expectations when using the network and to minimize the potential for collisions. Further, the proposed land use map and policies below emphasize land use compatibility and prioritizing road safety, which would serve to reduce potential conflicts between users of the transportation system. Therefore, the proposed general plan would not substantially increase hazards due to a design feature or incompatible uses.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

LAND USE ELEMENT POLICIES

LU-2.1 Promote high quality design and site planning that is compatible with surrounding development, public spaces, and natural resources.

LU-2.2 Prohibit the establishment or encroachment of incompatible uses. Where new residential development is proposed near incompatible uses, such as industrial or intensive agricultural lands, ensure proper setback and buffer requirements are provided to reduce operational restrictions on industrial and agricultural users. Setback and buffer requirements shall be placed on the residential developments when proposed near existing industrial and agriculture uses.

LU-2.3 Require new development that is located within or immediately adjacent to existing residential neighborhoods to be compatible and/or well integrated with the existing residential neighborhoods.

LU-2.4 Incorporate opens spaces and or transitional land uses as buffers between land uses which are potentially incompatible. For example, this could include commercial uses as a buffer between industrial and residential areas and transportation and rail corridors.

LU-2.5 Encourage non-conforming uses to redevelop as conforming uses.

LU-2.6 In considering land use change requests, consider factors such as compatibility with the surrounding uses, privacy, noise, and changes in traffic levels on residential streets.

LU-2.8 Ensure that development within the Willows Airport Influence Area is consistent with the compatible uses identified in the Project Review Guidelines for the Airport Land Use Commission.

LU-2.11 Encourage new development projects to incorporate public safety measures into project designs. Such measures may include, but are not limited to: crosswalks, exterior lighting, windows oriented towards the street, and other measures to prevent crime and promote safety through Environmental Design approaches.

LU-3.2 Encourage residential development to occur in a balanced and efficient pattern that reduces sprawl, preserves open space, and creates convenient connections to other land uses.

LU-6.3 Require all development projects to mitigate their infrastructure service impacts or demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

LU-6.5 Design services and infrastructure to serve existing and planned land uses. Actions that will induce growth beyond planned levels are prohibited.

LAND USE ELEMENT ACTIONS

LU-2a Through the development review and permit process, screen development proposals for land use compatibility, including conformance with existing and planned development.

LU-2b Update the Willows Municipal Code to include development standards for setback and buffer requirements for new residential development adjacent to industrial and agricultural land uses.

LU-2f Review development projects, consistent with the requirements of the California Environmental Quality Act and other applicable laws, to identify potential impacts associated with aesthetics, agriculture, air quality, circulation, community character, natural and cultural resources, greenhouse gases, public health and safety, water quality and supply, public services and facilities, and utilities and to mitigate of adverse impacts to the maximum extent that is feasible and practical.

LU-3b Seek funding for neighborhood improvement programs designed to stabilize and enhance the quality of existing neighborhoods. Such improvements may include, but are not limited to sidewalk

3.14 TRANSPORTATION AND CIRCULATION

upgrade and repair, street tree programs, street lighting, signage, trash collectors, bus stop shelters and benches and similar improvements to the public areas.

LU-3c Continue to upgrade and provide infrastructure improvements that supports residential neighborhoods and development opportunities as funding is available.

LU-4b Develop streetscape design and improvement plans for the Wood Street and Tehama Street corridors. These plans should include standards and criteria for branding, monument signage, lighting, landscaping, etc. Recognizing that Wood Street is owned and maintained by Caltrans, the City shall coordinate with Caltrans to craft and implement design improvements along Wood Street.

LU-4c Update the City's Design Guidelines applicable to the General Commercial land use designation. The updated guidelines should be streamlined, modernized, and provide concise and clear guidance to property owners. The guidelines should include specific standards for the Wood Street and Tehama Street corridors in order to promote these key corridors as gateway entries into the City.

LU-6a As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.

LU-6b Ensure that infrastructure is adequately sized to accommodate the proposed development and, if applicable, allow for extensions to future developments.

CIRCULATION ELEMENT POLICIES

CIRC-1.2 Roadway classifications shall be built to the standards defined by the Federal Highway Administration (FHWA) and Caltrans.

CIRC-1.3 Consider all modes of travel in planning, design, and construction of all transportation projects to create safe, livable, and inviting environments for pedestrians, bicyclists, motorists, and public transit users of all ages and capabilities.

CIRC-1.4 Implement a Safe Systems approach to designing roadways for all users. A Safe Systems approach recognizes that humans make mistakes on the road and focuses on vehicle or roadway design and operational changes rather than behavioral changes to create safe streets. The Safe Systems approach integrates the needs of all roadway users into a transportation system.

CIRC-1.5 Ensure all City roads are maintained and repaired in a timely fashion.

CIRC-1.6 Consider all transportation improvements as opportunities to improve safety, access, and mobility for all roadway users.

CIRC-2.1 Implement best practices to improve the pedestrian and bicycle environment.

CIRC-2.2 Consider walking and bicycling school access as a priority over vehicular movements when any such conflicts occur.

CIRC-3.3 Require new industrial development to pay a fair share toward improvements required to accommodate heavy vehicles, including increased pavement wear.

CIRC-3.4 Minimize potential conflicts between trucks and pedestrian, bicycle, transit, and vehicle access and circulation on streets with truck travel.

CIRC-3.6 Support safety improvements at current at-grade rail crossings.

CIRCULATION ELEMENT ACTIONS

CIRC-1a Pursue all available sources of funding and protect existing sources for the development, improvement, and maintenance of the existing roadway system.

CIRC-1b Review and revise roadway standards for community and rural areas to ensure that the standards are adequate to accommodate complete streets, addressing the following factors as applicable: number of travel lanes, lane width, medians, drainage control, shoulder width, pavement striping and markings, parking lanes, bike lanes, fire and emergency response standards, curb and gutter design, landscaped strip, and sidewalk width.

CIRC-1d Conduct a Local Roadway Safety Plan with the goal of reducing traffic fatalities and serious injuries on public roads and to support funding for safety improvements. The plan may consider collision history; vehicle, bicycle, and pedestrian volumes; vehicle speeds; and other improvements.

CIRC-1e Design roadway infrastructure that protects human life when collisions happen on City roads.

CIRC-1f Develop a Pavement Management System that documents all roads needing pavement and prioritizes roads for renovation based on a pavement condition index.

CIRC-1g Continually seek opportunities to fund maintenance of the circulation network, including the active pursuit by the Parks and Public Works Division of a wide range of grant sources administered by Caltrans and other agencies.

CIRC-2a Implement and build on recommendations for pedestrian and bicycle improvements included in the Glenn County Active Transportation Plan (2019).

CIRC-2c Pursue funding for construction and maintenance of bikeways and sidewalks, including off-road bikeways, where feasible.

CIRC-2d Add planned bicycle and pedestrian facilities in conjunction with road rehabilitation, reconstruction, or re-striping projects whenever feasible.

CIRC-3b Prominently sign all truck routes in accordance with the California Manual on Uniform Traffic Control Devices (MUTCD).

CIRC-3d Railroad crossings of State and county roads shall be marked, signalized, and gated where warranted by traffic volumes and required by the California Public Utility Commission (PUC). CIRC-3e Pursue funding for improved gates at current at-grade rail crossings.

3.14 TRANSPORTATION AND CIRCULATION

SAFETY ELEMENT POLICIES

SA-3.4 Support local and regional disaster planning and emergency response planning efforts, and look for opportunities to collaborate and share resources with other municipalities in the region.

SA-4.2 Emphasize the use of physical site planning as an effective means of enhancing safety and preventing crime. Open spaces, landscaping, parking lots, parks, play areas and other public spaces should be designed with maximum feasible visual exposure to community residents.

SAFETY ELEMENT ACTIONS

SA-3e Develop and annually update an emergency contact list and emergency response information on the City's website. The information should include emergency access routes, available emergency resources, and contact information for emergency responders.

SA-3f As part of the development review process, consult with the fire department in order to ensure that the project provides adequate emergency access.

SA-4a As part of the development review process, consult with the Sheriff's Department in order to ensure that the project does not impair the provision of law enforcement services through inappropriate site design. The use of physical site planning as an effective means of preventing crime, including lighting, visibility, and video surveillance requirements shall be determined by the Department, where applicable.

SA-4e Seek funding from State, Federal, and other sources to assist in emergency management planning, including community education and outreach describing public procedures and evacuation routes in the event of an emergency or natural disaster

SA-4g Review and require all projects to adhere to Municipal Code requirements to ensure adequate safety services. These include but are not limited to Chapter 19.05 (Impact Fee Ordinance), which requires development impact fees to be charged to fund improvements to the City's infrastructure. Chapter 2.25 (Fire Department) describes the duties of the municipal fire department and the responsibilities of the fire chief in determining imminent health and safety hazards, and the powers associated with such a determination. Chapter 17.25 (Improvements) describes the requirements of a subdivider to provide and connect water mains and fire hydrants to Cal Water's water system.

CONCLUSION

Any transportation network modifications associated with the general plan will comply with applicable design standards and the proposed general plan's policies and actions related to land use, circulation, and safety. The combination of these standards, policies, and actions is to reduce the potential for future collisions and to decrease the potential harm to people when traveling. Therefore, this impact is considered ***less than significant***.

Impact 3.14-4: General Plan implementation may cause inadequate emergency access (Less than Significant).

Emergency access to individual land use parcels is typically assessed at the project level and the proposed general plan contains policies and actions (listed below) to address the needs of

emergency responders and requires consultation with the fire and sheriff departments during development review. For larger area responses, the proposed general plan relies on close coordination and support with local and regional agencies. Glenn County maintains an Operational Area Emergency Operations Plan (OA EOP)³ and it provides the overall emergency response framework for an integrated response within the County and the incorporated cities of Orland and Willows. The proposed general plan would not interfere or create inconsistencies with this plan, but the plan's population and employment growth could require updates or modifications to this plan over time.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

SAFETY ELEMENT POLICIES

SA-3.4 Support local and regional disaster planning and emergency response planning efforts, and look for opportunities to collaborate and share resources with other municipalities in the region.

SA-4.2 Emphasize the use of physical site planning as an effective means of enhancing safety and preventing crime. Open spaces, landscaping, parking lots, parks, play areas and other public spaces should be designed with maximum feasible visual exposure to community residents.

SAFETY ELEMENT ACTIONS

SA-3e Develop and annually update an emergency contact list and emergency response information on the City's website. The information should include emergency access routes, available emergency resources, and contact information for emergency responders.

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SA-4a As part of the development review process, consult with the Sheriff's Department in order to ensure that the project does not impair the provision of law enforcement services through inappropriate site design. The use of physical site planning as an effective means of preventing crime, including lighting, visibility, and video surveillance requirements shall be determined by the Department, where applicable.

SA-4e Seek funding from State, Federal, and other sources to assist in emergency management planning, including community education and outreach describing public procedures and evacuation routes in the event of an emergency or natural disaster

SA-4g Review and require all projects to adhere to Municipal Code requirements to ensure adequate safety services. These include but are not limited to Chapter 19.05 (Impact Fee Ordinance), which requires development impact fees to be charged to fund improvements to the City's infrastructure. Chapter 2.25 (Fire Department) describes the duties of the municipal fire department and the responsibilities of the fire chief in determining imminent health and safety hazards, and the powers

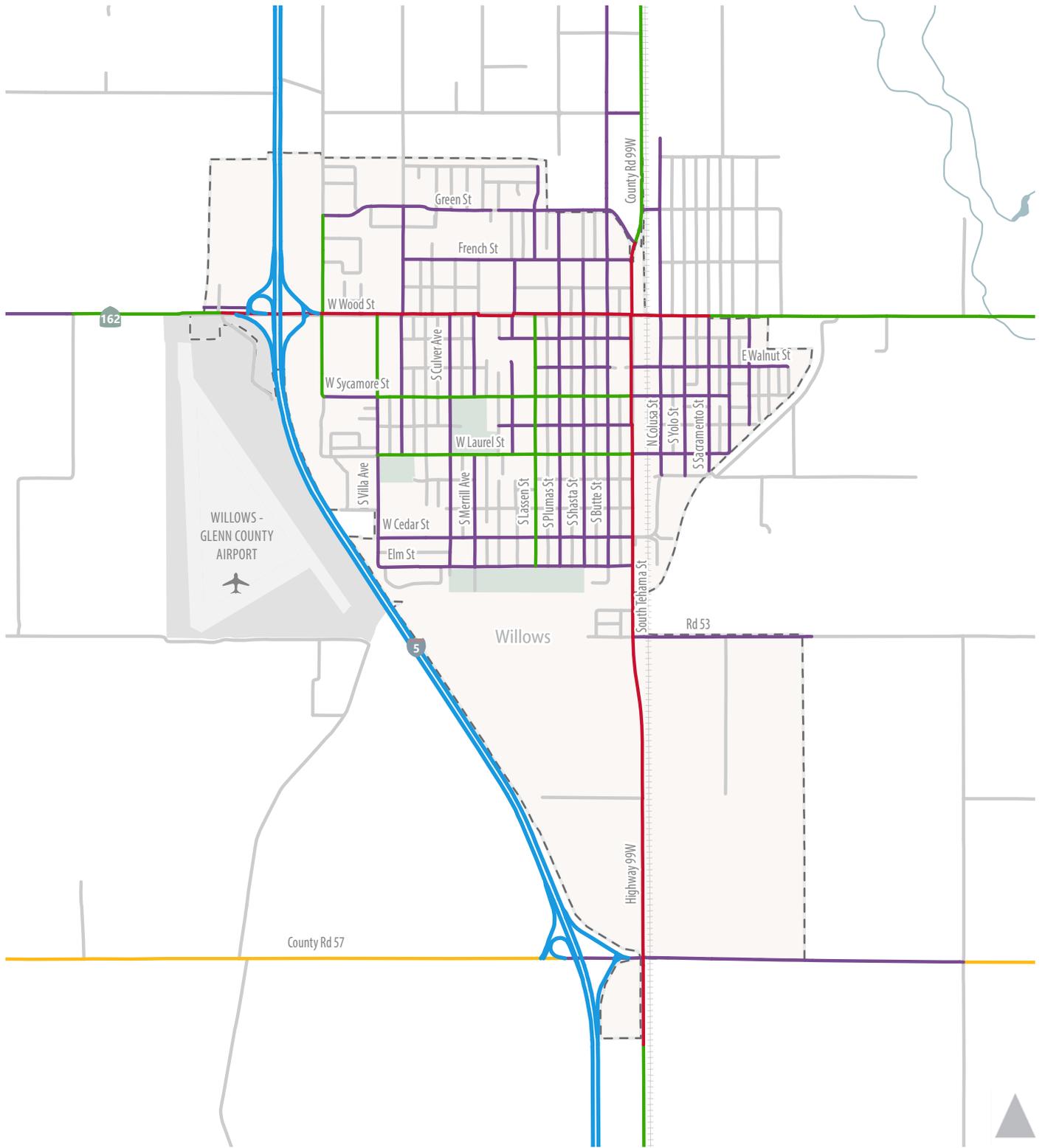
³ <https://www.countyofglenn.net/dept/sheriff/office-emergency-services/response-plans>

associated with such a determination. Chapter 17.25 (Improvements) describes the requirements of a subdivider to provide and connect water mains and fire hydrants to Cal Water's water system.

Neither the city or the county has a travel demand model capable of forecasting travel time changes associated with new growth, which presents some uncertainty about how the effect that new growth will have on emergency access, response times, and evacuation times. While it is possible that increased development under the general plan would increase traffic and delays that could affect emergency response and evacuation times, following the plan policies and actions listed above should provide for adequate service. Therefore, this impact is **less than significant**.

CONCLUSION

The proposed general plan policies and actions should not result in a change or deterioration of emergency access and response times given the population and employment growth projected in Willows. Therefore, this impact is considered **less than significant**.

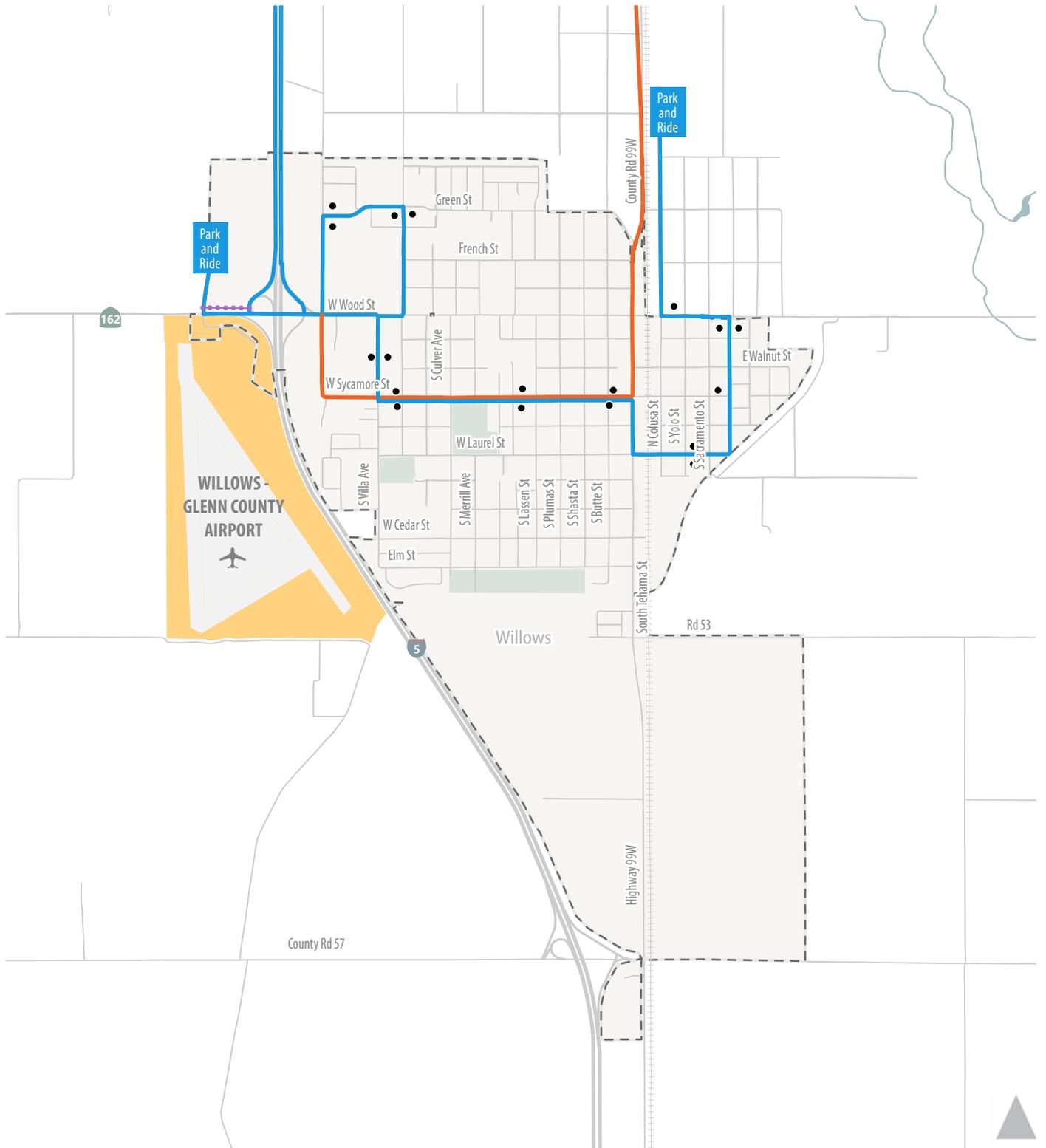


- | | | |
|-----------------------------|--------------------------|-----------------|
| Functional Classification | Other Principal Arterial | Minor Collector |
| Interstate | Minor Arterial | Local |
| Other Freeway or Expressway | Major Collector | |



Figure 3.14-1
Willows Roadway System and Functional Classification

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- Bus Stop
- Bike Facilities
- Airport Boundary
- GlennRide
- ◆ Class II Bike Lane
- Bus Route
- Express Route



Figure 3.14-2
Bikeways, Transit Service, and Airports

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Utilities are critical to providing safe drinking water, disposal and treatment of wastewater (sewage), stormwater drainage, and solid waste disposal. This section provides a background discussion of the utility systems in Willows including water supplies, wastewater, storm drainage, and solid waste. This section is organized with an existing setting, regulatory setting, and impact analysis.

No Notice of Preparation (NOP) comments were received regarding this environmental topic.

3.15.1 WATER SUPPLIES

KEY TERMS

Acre feet: The volume of one acre of water to a depth of one foot. Each acre-foot of water is equal to approximately 325,851.4 gallons.

BGS: Below ground surface.

GPD: Gallons per day.

GPM: Gallons per minute.

Groundwater: Water that is underground and below the water table, as opposed to surface water, which flows across the ground surface. Water beneath the earth's surface fills the spaces in soil, gravel, or rock formations. Pockets of groundwater are often called "aquifers" and are the source of drinking water for a large percentage of the population in the United States. Groundwater is often extracted using wells which pump the water out of the ground and up to the surface. Groundwater is naturally replenished by surface water from precipitation, streams, and rivers when this recharge reaches the water table.

MG: Million gallons

MGD: Million gallons per day

Surface water: Water collected on the ground or from a stream, river, lake, wetland, or ocean. Surface water is replenished naturally through precipitation, but is lost naturally through evaporation and seepage into soil.

WATER DEMANDS

Actual water uses in 2020 by customer category is shown in Table 3.15-1. Total system demand in 2020 was 1,316 AF. District water use in 2020 was strongly affected by the Drought Emergency Regulation adopted by the State Water Resources Control Board in May of 2015 (SWRCB Resolution No. 2015-0032). Among other things, the Drought Emergency Regulation mandated urban retail water suppliers reduce potable water use between June of 2015 and February of 2016 by percentage amounts specified by the State Water Resources Control Board. The Willows District was ordered to reduce potable water use by 28 percent over this period relative to use over the same period in 2013. Between June and December 2015, water use in Willows was 31.2 percent less than water use over the same period in 2013.

3.15 UTILITIES AND SERVICE SYSTEMS

TABLE 3.15-1: DEMANDS FOR POTABLE AND RAW WATER - ACTUAL

USE TYPE	2020 ACTUAL LEVEL OF WATER DELIVERED VOLUME (AF)
Single Family	786
Multi-Family	98
Commercial	225
Institutional/Governmental	63
Other	5
Losses	139
Total	1,316

NOTES:

(A) VOLUMES ARE IN UNITS OF AF.

(B) REAL AND APPARENT LOSSES.

SOURCE: CALIFORNIA WATER SERVICE 2020 URBAN WATER MANAGEMENT PLAN - WILLOWS DISTRICT

Residential customers account for approximately 67 percent of total water deliveries in the Willows District, most of which (786 AF) is associated with single-family water use. Commercial uses in 2020 totaled 225 AF, and Institutional/Governmental uses accounted for approximately 63 AF. Additionally, 139 AF was attributed to system losses in 2020.

WATER SUPPLIES

WATER SUPPLIERS

California Water Service Company (Cal Water) – Willows

Cal Water is an investor-owned public utility supplying water service to 1.7 million Californians through 435,000 connections. Its 24 separate water systems serve 63 communities from Chico in the North to the Palos Verdes Peninsula in Southern California. California Water Service Group, Cal Water's parent company, is also serving communities in Washington, New Mexico and Hawaii.

Cal Water incorporated in 1926 and has provided water service to the Willows community since 1927. As described in the Districts 2015 Urban Water Management Plan the number of municipal connections in 2015 for the City of Willows was 2,371 service connections.

The City of Willows Water Department owns and operates a very small water system south of the District Cal Water boundary in the southernmost portion of the city of Willows. Additionally, some of the parks within the City are currently served by City owned irrigation wells.

The Cal Water Willows District currently provides groundwater to the Willows service area. The District does not currently have surface water rights to support a conjunctive use. Water delivered by the District comes from local groundwater. The District operates seven groundwater wells, two storage tanks, and 36 miles of pipeline.

WATER SUPPLIES

Groundwater

Groundwater is the sole source of water supply for the Willows District. The groundwater used by the Willows District is extracted from the Colusa Subbasin which underlies the District. The District has a total of seven wells (four active, three standby) located within the District service area.

There are two surface storage structures, enabling the groundwater wells to pump to storage during non-peak demand periods and provide peak day demand. The District has sufficient production capacity to supply all of the District’s current annual average day and maximum day demand.

As noted above, groundwater is the only source of supply for the Willows District. Table 3.15-2 lists the amount of groundwater pumped by Cal Water over the past five years. The available groundwater supply has been sufficient to meet all of the District’s demands in the past five years and all prior years.

TABLE 3.15-2: GROUNDWATER VOLUME PUMPED

LOCATION OR BASIN NAME	GROUNDWATER VOLUME PUMPED (AF)				
	2016	2017	2018	2019	2020
Colusa Subbasin	1,037	1,154	1,152	1,147	1,316

NOTES:

(A) VOLUMES ARE IN UNITS OF AF.

(B) THE COLUSA SUBBASIN IS NOT ADJUDICATED, AND THE PROJECTED GROUNDWATER SUPPLY VOLUMES ARE NOT INTENDED TO AND DO NOT DETERMINE, LIMIT OR REPRESENT CAL WATER’S WATER RIGHTS OR MAXIMUM PUMPING VOLUMES. ANY DETERMINATION OF CAL WATER’S WATER RIGHTS, AS AN OVERLYING OWNER, APPROPRIATOR, MUNICIPAL WATER PURVEYOR OR OTHERWISE, IS BEYOND THE SCOPE OF THIS REPORT AND THE UWMP STATUTES AND REGULATIONS.

SOURCE: CALIFORNIA WATER SERVICE 2020 URBAN WATER MANAGEMENT PLAN - WILLOWS DISTRICT

Surface Water

Cal Water does not impound or divert surface water as a means to meet demands in the Willows District.

Stormwater

There are no plans to divert stormwater for beneficial uses in the Willows District.

Wastewater and Recycled Water

The recycling of wastewater potentially offers several potential benefits to Cal Water and its customers. Perhaps the greatest of these benefits is to help maintain a sustainable groundwater supply either through direct recharge, or by reducing potable supply needs by utilizing recycled water for appropriate uses (e.g., landscape irrigation) now being served by potable water. Currently, however, no wastewater is recycled for direct reuse within the Willows District.

The Willows Wastewater Treatment Plant (WWTP) is operated by the City of Willows (City) and provides wastewater treatment service for the Willows District service area.

3.15 UTILITIES AND SERVICE SYSTEMS

PROJECTED POTABLE WATER DEMANDS AND SUPPLY

Projected water demands in the CalWater-Willows service area by customer category through 2045 are shown in Table 3.15-3. Future demands are estimated as the product of future services and expected water use per service. Future services are based on historical growth rates in the District and planned development. Single- and multi-family residential services were projected in the UWMP in the near-term using existing development plans. For the longer-term, the historical growth rate for the last 10 and 5 years, respectively, were used. The projected average annual growth rate in commercial service is approximately 3 percent. No growth in industrial services was assumed in the forecast. Institutional services are assumed to decline. The projected average annual growth rate in services across all customer categories is approximately 1 percent. Projected water uses in Table 3.15-3 are predicated on unrestricted demands under normal weather conditions.

TABLE 3.15-3 DEMANDS FOR POTABLE AND RAW WATER – PROJECTED

USE TYPE	PROJECTED WATER USE (AF)				
	2025	2030	2035	2040	2045
Single Family	849	922	924	926	933
Multi-Family	103	101	99	99	99
Commercial	384	425	422	624	622
Institutional/Governmental	62	61	60	59	59
Other	4	4	4	4	4
Landscape	0	0	0	49	49
Losses	125	105	106	115	116
Total	1,527	1,617	1,615	1,876	1,881

NOTES:

(A) VOLUMES ARE IN UNITS OF AF.

(B) REAL AND APPARENT LOSSES.

SOURCE: CALIFORNIA WATER SERVICE 2020 URBAN WATER MANAGEMENT PLAN - WILLOWS DISTRICT

Projected water supplies in the CalWater-Willows service area through 2045 are shown in Table 3.15-4. The City's 2020 UWMP presents an analysis of the availability of groundwater supply for the District based on historical groundwater use and review of relevant assessments conducted by the CGA and GGA GSAs as part of GSP development to date. Based on the available information, the available groundwater supply is expected to be sufficient to meet the projected future demands of the District in normal and multiple dry year periods through 2045.

TABLE 3.15-4 SUPPLIES FOR POTABLE AND RAW WATER – PROJECTED

WATER SUPPLY	PROJECTED WATER SUPPLY (AF)				
	2025	2030	2035	2040	2045
Groundwater	1,527	1,617	1,615	1,876	1,881

NOTES:

(A) VOLUMES ARE IN UNITS OF AF.

(B) THE COLUSA SUBBASIN IS NOT ADJUDICATED, AND THE PROJECTED GROUNDWATER SUPPLY VOLUMES ARE NOT INTENDED TO AND DO NOT DETERMINE, LIMIT OR REPRESENT CAL WATER'S WATER RIGHTS OR MAXIMUM PUMPING VOLUMES. ANY DETERMINATION OF CAL WATER'S

WATER RIGHTS, AS AN OVERLYING OWNER, APPROPRIATOR, MUNICIPAL WATER PURVEYOR OR OTHERWISE, IS BEYOND THE SCOPE OF THIS REPORT AND THE UWMP STATUTES AND REGULATIONS.

SOURCE: CALIFORNIA WATER SERVICE 2020 URBAN WATER MANAGEMENT PLAN - WILLOWS DISTRICT

As described in the District's UWMP, the projected supply and demand totals match. As discussed above, groundwater will be used to serve all demand through 2045, and the reasonably available volume of groundwater supply is anticipated to match demands through 2045 in each water year. Water supply and demand patterns change during normal, single dry, and multi dry years. Cal Water has relied on the demand modeling described to forecast demands for normal, single dry and multiple dry years. As described in the District's UWMP, it is assumed that Cal Water's groundwater supply for the Willows District will be able to serve those demands.

WATER DISTRIBUTION

The City of Willows domestic water is supplied by the California Water Service Company except for a small area on the south side of Willows where water is supplied by the City. The City's small water system serves the property south of Road 53.

The District is owned and operated by California Water Service Company (Cal Water), an investor-owned water utility regulated by the California Public Utilities Commission (CPUC).

The District currently operates seven wells, two storage tanks, and 36 miles of pipeline to pump and delivers approximately one million gallons of local groundwater per day. The District delivers water to residential, commercial, industrial, and governmental customers. Residential customers account for most of the District's service connections and nearly three-quarters of its water demands.

REGULATORY SETTING-WATER SUPPLIES

STATE

California Department of Health Services

The Department of Health Services, Division of Drinking Water and Environmental Management, oversees the Drinking Water Program. The Drinking Water Program regulates public water systems and certifies drinking water treatment and distribution operators. It provides support for small water systems and for improving their technical, managerial, and financial capacity. It provides subsidized funding for water system improvements under the State Revolving Fund ("SRF") and Proposition 50 programs. The Drinking Water Program also oversees water recycling projects, permits water treatment devices, supports and promotes water system security, and oversees the Drinking Water Treatment and Research Fund for MTBE and other oxygenates.

Consumer Confidence Report Requirements

California Code of Regulations (CCR) Title 22, Chapter 15, Article 20 requires all public water systems to prepare a Consumer Confidence Report for distribution to its customers and to the Department of Health Services. The Consumer Confidence Report provides information regarding the quality of potable water provided by the water system. It includes information on the sources of the water, any detected contaminants in the water, the maximum contaminant levels set by regulation,

violations and actions taken to correct them, and opportunities for public participation in decisions that may affect the quality of the water provided.

Urban Water Management Planning Act

The Urban Water Management Planning Act has as its objectives the management of urban water demands and the efficient use of urban water. Under its provisions, every urban water supplier is required to prepare and adopt an urban water management plan. An “urban water supplier” is a public or private water supplier that provides water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. The plan must identify and quantify the existing and planned sources of water available to the supplier, quantify the projected water use for a period of 20 years, and describe the supplier’s water demand management measures. The urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Department of Water Resources must receive a copy of an adopted urban water management plan.

Senate Bill (SB) 610 and Assembly Bill (AB) 901

The State Legislature passed SB 610 and AB 901 in 2001. Both measures modified the Urban Water Management Planning Act.

SB 610 requires additional information in an urban water management plan if groundwater is identified as a source of water available to an urban water supplier. It also requires that the plan include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 requires a city or county that determines a project is subject to CEQA to identify any public water system that may supply water to the project and to request identified public water systems to prepare a specified water supply assessment. The assessment must include, among other information, an identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and water received in prior years pursuant to these entitlements, rights, and contracts.

AB 901 requires an urban water management plan to include information, to the extent practicable, relating to the quality of existing sources of water available to an urban water supplier over given time periods. AB 901 also requires information on the manner in which water quality affects water management strategies and supply reliability. The bill requires a plan to describe plans to supplement a water source that may not be available at a consistent level of use, to the extent practicable. Additional findings and declarations relating to water quality are required.

Senate Bill (SB) 221

SB 221 adds Government Code Section 66455.3, requiring that the local water agency be sent a copy of any proposed residential subdivision of more than 500 dwelling units within five days of the subdivision application being accepted as complete for processing by the city or county. It also adds Government Code Section 66473.7, establishing detailed requirements for establishing whether a “sufficient water supply” exists to support any proposed residential subdivisions of more than 500

dwelling, including any such subdivision involving a development agreement. When approving a qualifying subdivision tentative map, the city or county must include a condition requiring availability of a sufficient water supply. The applicable public water system must provide proof of availability. If there is no public water system, the city or county must undertake the analysis described in Government Code Section 66473.7. The analysis must include consideration of effects on other users of water and groundwater.

LOCAL

Glenn Groundwater Authority

The Glenn Groundwater Authority (GGA) is a nine-member, multi-agency Joint Powers Authority (JPA) that was formed on June 20, 2017. The GGA is the Groundwater Sustainability Agency (GSA) responsible for implementation of the Sustainable Groundwater Management Act (SGMA) in the Glenn County portion of the Colusa Subbasin (5-21.52). The Board of the GGA is composed of representatives of the following:

County of Glenn, City of Orland, City of Willows, Glenn-Colusa Irrigation District, Glide Water District, Princeton-Codora-Glenn/Provident Irrigation District (1 seat), Orland-Artois Water District, and Kanawha Water District formed with the primary purpose to comply with and implement SGM

The Glenn Groundwater Authority was created by forming a Joint Exercise of Powers Agreement, signed by nine local agencies, with the purposes of being a Groundwater Sustainability Agency for the Glenn County portion of the Colusa Subbasin.

California Water Service Company 2020 UWMP - Willows

Per CWC §10617, only urban water suppliers with 3,000 or more customers or supplying 3,000 or more acre-feet of water annually are required to complete an UWMP. Willows District is presently below both thresholds. However, Cal Water has elected to prepare plans for all the districts it operates regardless of their size because these plans are integral to Cal Water planning initiatives at both the enterprise-level and district-level, as well as important sources of information for broader regional planning efforts.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the project will have a significant impact on the environment associated with Utilities if it will:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunication facilities, the construction or relocation of which could cause significant environmental effects; and/or
- Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

IMPACTS AND MITIGATION MEASURES

Impact 3.15-1: General Plan implementation would result in sufficient water supplies available to serve the City and reasonably foreseeable future development during normal, dry and multiple dry years (Less than Significant)

Implementation of the General Plan would result in increased population and employment growth within the Planning Area, and a corresponding increase in the demand for additional water supplies. As described in Chapter 2.0, buildout of the General Plan could yield a total of up to 3,421 housing units, a population of 8,689 people, and 3,501 jobs within the Planning Area. As shown in Table 2.0-2 of Chapter 2.0, this represents development growth over existing conditions of up to 963 new housing units, 2,446 people, and 1,310 jobs.

As discussed above, the Calwater 2020 UWMP documented the demands for potable water in 2020 and projected future water demands and supplies through 2045. The City is expected to have adequate water supply available to serve the buildout GPU land uses. Calwater anticipates that the water demand in 2045 would be 1,881 AFY and that the District has the capacity to serve. It is estimated that the District's 2045 Buildout assumption population is 9,117 which is within the growth identified in Chapter 2.0 (Project Description). As development projects are proposed within the city each project will be reviewed for a variety of service requirements, conformance with local and State requirements and water availability. SB 610 and SB 221, require review of supplies and verify their availability before approving developments. Additionally, General Plan Policy LU 6-3 requires all development projects to mitigate their infrastructure service impacts or demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

The City has ample water supply to account for the proposed General Plan, and the City will require all development projects to demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired. The proposed General Plan includes a range of policies designed to ensure an adequate water supply for development and to minimize the potential adverse effects of increased water use. The policies listed below would further assist in ensuring that adequate water supplies are available to serve new growth projected under the proposed General Plan and would ensure impacts associated with water supplies are **less than significant**.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

LAND USE ELEMENT POLICIES

LU 6-2: Require development, infrastructure, and long-term planning projects to be consistent with all applicable infrastructure plans, including the California Water Service District's Urban Water Management Plan, and the City's Capital Improvement Program.

LU 6-3: Require all development projects to mitigate their infrastructure service impacts or demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 10.1: Protect floodways and other areas with high groundwater water recharge capability.

COS 10.2: Require discretionary projects, as well as new flood control and stormwater conveyance projects, to integrate best management practices (BMPs) and natural features to the greatest extent feasible, while ensuring that these features adequately convey and control stormwater to protect human health, safety, and welfare.

COS 10.3: Protect surface water quality and prioritize the use of natural features such as bioswales, vegetation, retention ponds, and other measures to remove surface water pollutants prior to discharge into surface waters.

COS 10.4: Promote water conservation among water users.

COS 10.5: Support and promote the use of drought-tolerant and regionally native plants in landscaping.

COS 10.6: Where feasible, encourage and support multipurpose detention basins that provide water quality protection, storm water detention, open space amenities, and recreational amenities.

COS 10.7: Monitor groundwater extraction activities and ensure the health of the groundwater basin.

CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

COS-10a: Continue to identify stormwater and drainage facilities in need of repair and address these needs through the CIP process. As feasible seek to incorporate BMPs and LID techniques into repairs and upgrades that promote water quality objectives.

COS-10b: Collaborate with water suppliers and wastewater treatment plant operators to increase the availability of treated or recycled water for agricultural purposes.

COS-10c: Participate in and collaborate with Glenn County, and other regional groundwater management agencies to support and promote Groundwater Sustainability Plans and implementation strategies for the groundwater basin.

Impact 3.15-2: General Plan implementation may require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (Less than Significant)

Development and growth in the City under the proposed General Plan would result in increased demand for water supplies, including water conveyance and treatment infrastructure. The proposed General Plan includes policies and actions to ensure that water supplies are provided at acceptable levels and to ensure that development and growth does not outpace the provision of available water supplies.

As described under Impact 3.15-1, the projected water supplies are expected to be adequate to meet demand that would be generated by buildout of the General Plan. As such, implementation and buildout of the General Plan would not result in the need to construct or expand water supply and treatment facilities that have not already been described and accounted for in the Districts' relevant water master plans, which include the 2020 UWMP.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

The proposed General Plan includes a range of policies (listed above) to ensure that water providers serving the city are consulted with during future land use changes in order to ensure that future supply levels meet demands. Specifically, General Plan Policy LU 6-3 requires all development projects to mitigate their infrastructure service impacts or demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

Future development in the Planning Area would be required to connect to existing water distribution infrastructure in the vicinity of each site, pay the applicable water system connection fees, and pay the applicable water usage rates. Future projects may be required to implement site specific and limited off-site improvements to the water distribution system in order to connect new project sites to the existing water infrastructure network. The specific impacts of providing new and expanded water distribution infrastructure cannot be determined at this time, as the General Plan does not propose or authorize any specific development projects or include details on any future development projects. However, any future improvements to the existing water distribution infrastructure would be primarily provided on sites with land use designations that allow for urbanized land uses, and the environmental impacts of constructing and operating the new water distribution infrastructure would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the proposed General Plan. Therefore, this impact is considered **less than significant**.

3.15.2 WASTEWATER

KEY TERMS

Effluent: Effluent is an outflowing of water from a natural body of water, or from a man-made structure. Effluent in the man-made sense is generally considered to be water pollution, such as the outflow from a sewage treatment facility or the wastewater discharge from industrial facilities. In the context of waste water treatment plants, effluent that has been treated is sometimes called secondary effluent, or treated effluent.

NPDES: Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming, and other activities. As authorized by the Clean Water Act, the National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters.

WWTP: Wastewater treatment plant. Treatment of wastewater may include the following processes: screening to remove large waste items; grit removal to allow sand, gravel, and sediment to settle out; primary sedimentation where sludge can settle out of the wastewater; secondary treatment to substantially degrade the biological content of the sewage; tertiary treatment to raise the quality of the effluent before it is discharged; and, discharge.

WASTEWATER TREATMENT

City of Willows Wastewater Collection, Treatment, and Disposal

The City of Willows operates and maintains the sewer system consisting of gravity sewers and pumping stations to collect wastewater from residential and commercial customers. The collected wastewater is discharged to trunk sewers and interceptors owned and operated by the City of Willows and conveyed to the Willows Wastewater Treatment Plant (WWTP) for treatment.

The WWTP is owned and operated by the City and serves the population of Willows and the Northeast Willows Community Services District. The WWTP produces disinfected tertiary recycled water through extended aerated ponds, clarifiers, filtration, chlorine disinfection and dechlorination. There are 2,255 residential connections and 222 commercial/industrial connections.

The City entered into an agreement with Solar Power Partner, LP (SPP) in 2013 to provide solar power at the City's Wastewater Treatment Plant. Under the agreement SPP provided solar array equipment and the City provided the underlying real property for the solar array. The City will purchase the power generated by the array for a period of 20 years from SPP, with an option to take ownership of the array at the end of the 20-year period.

3.15 UTILITIES AND SERVICE SYSTEMS

According to the Sewer Master Plan of 2008, the wastewater collection system consists of 29 miles of Vitrified Clay Pipe (VCP) and some Polyvinyl Chloride Pipe (PVC) and Asbestos Cement sewer mains ranging in size from four inches to eighteen inches in diameter with five small-capacity pump stations.

Water entering the collection system through defective cleanouts, joints and pipes, and manhole walls can be attributed to groundwater, commercial/industrial uses and storm runoff. Limited efforts have been completed to upgrade the system. Thus, infiltration and inflow (I&I) is becoming a problem to the system. Infiltration and inflow are significant in the piping tributaries to the Sycamore Lift Station according to the Sewer Master Plan

The original Wastewater Treatment Plant was constructed in 1948 and later upgraded in 1992. In 2007, the City of Willows completed a major upgrade to the wastewater treatment plant (WWTP) by increasing the treatment capability from secondary to tertiary quality effluent with a rated capacity of 1.2 mgd (million gallons per day). The treatment system includes influent screening, extended aeration (biolac system), activated sludge with two secondary clarifiers, nine continuous backwash sand filters, disinfection with sodium hypochlorite, dechlorination using sodium bisulfite injection, equalization and emergency storage ponds, and sludge storage lagoons. The WWTP currently has a daily dry weather average flow of approximately 0.650 million gallons per day (650,000 gallons per day) from all customers in Willows WWTP service area.

Other Community Systems

Northeast Willows CSD. The community of Northeast Willows within the unincorporated county adjacent to the City of Willows, is served by community systems for wastewater disposal and treatment. The Northeast Willows Community Services District was formed in 1965 and provides for the collection, treatment or disposal of sewage from the district and its inhabitants. However, the District only provides directly for the collection of wastewater, and wastewater treatment is provided by the City of Willows under a Joint Powers Agreement. The City of Willows owns the wastewater collection system within the City and the treatment and disposal system that provides sewerage service to the Northeast Willows CSD. The City provides or can contract for all maintenance, including routine inspection, rodding, balling, flushing, plugging, and the making of minor repairs, excluding replacement and installation of lines and pipes, to the entire sewage collection system, main trunk sewers and facilities. In practice, the City of Willows contract staff provides collection and treatment, maintain and clean the system, and inspect any new connections or upgrades. The CSD includes 300 residential sewer service connections within its service area.

The Northeast CSD wastewater treatment facilities are located at 1600 S. Tehama Street, Willows. The wastewater treatment plant (WWTP) is governed by Waste Discharge Requirement Order No. R5-2006-0009 adopted by the California Regional Water Quality Control Board, Central Valley Region. The WDR Order regulates the discharge of wastewater from the Willows WWTP to Agricultural Drain C and Glenn-Colusa Irrigation District Lateral 26-2, both are tributaries to the Colusa Basin Drain.

There are no waste discharge specifications specifically for the Northeast Willows CSD because the wastewater collected is treated by the City of Willows. The CSD has an agreement with Willows for wastewater treatment at the WWTP for up to 96,000 gallons per day, and the CSD currently sends approximately 48,000 gallons per day to the WWTP.

WASTEWATER FLOWS

Wastewater flows are typically evaluated for several conditions, including the following:

- Average Dry Weather Flow (ADWF) is the highest five-weekday period from June through October.
- Average Dry Weather Influent Flow (ADWIF) is the highest five-weekday period from June through October.
- Average Dry Weather Effluent Flow (ADWEF) is the lowest average Effluent flow for any three consecutive months between the months of May and October.

WASTEWATER COLLECTION SYSTEM

City of Willows Wastewater Collection, Treatment, and Disposal

The City of Willows operates and maintains the sewer system consisting of gravity sewers and pumping stations to collect wastewater from residential and commercial customers. The collected wastewater is discharged to trunk sewers and interceptors owned and operated by the City of Willows and conveyed to the Willows Wastewater Treatment Plant (WWTP) for treatment.

The WWTP is owned and operated by the City and serves the population of Willows and the Northeast Willows Community Services District. The WWTP produces disinfected tertiary recycled water through extended aerated ponds, clarifiers, filtration, chlorine disinfection and dechlorination. There are 2,255 residential connections and 222 commercial/industrial connections.

The City entered into an agreement with Solar Power Partner, LP (SPP) in 2013 to provide solar power at the City's Wastewater Treatment Plant. Under the agreement SPP provided solar array equipment and the City provided the underlying real property for the solar array. The City will purchase the power generated by the array for a period of 20 years from SPP, with an option to take ownership of the array at the end of the 20-year period.

According to the Sewer Master Plan of 2008, the wastewater collection system consists of 29 miles of Vitrified Clay Pipe (VCP) and some Polyvinyl Chloride Pipe (PVC) and Asbestos Cement sewer mains ranging in size from four inches to eighteen inches in diameter with five small-capacity pump stations.

Water entering the collection system through defective cleanouts, joints and pipes, and manhole walls can be attributed to groundwater, commercial/industrial uses and storm runoff. Limited efforts have been completed to upgrade the system. Thus, infiltration and inflow (I&I) is becoming

a problem to the system. Infiltration and inflow are significant in the piping tributaries to the Sycamore Lift Station according to the Sewer Master Plan

The original Wastewater Treatment Plant was constructed in 1948 and later upgraded in 1992. In 2007, the City of Willows completed a major upgrade to the wastewater treatment plant (WWTP) by increasing the treatment capability from secondary to tertiary quality effluent with a rated capacity of 1.2 mgd (million gallons per day). The treatment system includes influent screening, extended aeration (biolac system), activated sludge with two secondary clarifiers, nine continuous backwash sand filters, disinfection with sodium hypochlorite, dechlorination using sodium bisulfite injection, equalization and emergency storage ponds, and sludge storage lagoons. The WWTP currently has a daily dry weather average flow of approximately 0.650 million gallons per day (650,000 gallons per day) from all customers in Willows WWTP service area.

Other Community Systems

Northeast Willows CSD. The community of Northeast Willows within the unincorporated county adjacent to the City of Willows, is served by community systems for wastewater disposal and treatment. The Northeast Willows Community Services District was formed in 1965 and provides for the collection, treatment or disposal of sewage from the district and its inhabitants. However, the District only provides directly for the collection of wastewater, and wastewater treatment is provided by the City of Willows under a Joint Powers Agreement. The City of Willows owns the wastewater collection system within the City and the treatment and disposal system that provides sewerage service to the Northeast Willows CSD. The City provides or can contract for all maintenance, including routine inspection, rodding, balling, flushing, plugging, and the making of minor repairs, excluding replacement and installation of lines and pipes, to the entire sewage collection system, main trunk sewers and facilities. In practice, the City of Willows contract staff provides collection and treatment, maintain and clean the system, and inspect any new connections or upgrades. The CSD includes 300 residential sewer service connections within its service area.

The Northeast CSD wastewater treatment facilities are located at 1600 S. Tehama Street, Willows. The wastewater treatment plant (WWTP) is governed by Waste Discharge Requirement Order No. R5-2006-0009 adopted by the California Regional Water Quality Control Board, Central Valley Region. The WDR Order regulates the discharge of wastewater from the Willows WWTP to Agricultural Drain C and Glenn-Colusa Irrigation District Lateral 26-2, both are tributaries to the Colusa Basin Drain.

There are no waste discharge specifications specifically for the Northeast Willows CSD because the wastewater collected is treated by the City of Willows. The CSD has an agreement with Willows for wastewater treatment at the WWTP for up to 96,000 gallons per day, and the CSD currently sends approximately 48,000 gallons per day to the WWTP.

REGULATORY SETTING - WASTEWATER

STATE

State Water Resources Control Board/Regional Water Quality Control Board

In California, all wastewater treatment and disposal systems fall under the overall regulatory authority of the State Water Resources Control Board (SWRCB) and the nine California Regional Water Quality Control Boards (RWQCBs), who are charged with the responsibility of protecting beneficial uses of State waters (ground and surface) from a variety of waste discharges, including wastewater from individual and municipal systems. The City of Willows falls within the jurisdiction of the San Francisco Bay RWQCB.

The RWQCB's regulatory role often involves the formation and implementation of basic water protection policies. These are reflected in the individual RWQCB's Basin Plan, generally in the form of guidelines, criteria and/or prohibitions related to the siting, design, construction, and maintenance of on-site sewage disposal systems. The SWRCB's role has historically been one of providing overall policy direction, organizational and technical assistance, and a communications link to the State legislature.

The RWQCBs may waive or delegate regulatory authority for on-site sewage disposal systems to counties, cities or special districts. Although not mandatory, it is commonly done and has proven to be administratively efficient. In some cases, this is accomplished through a Memorandum of Understanding (MOU), whereby the local agency commits to enforcing the Basin Plan requirements or other specified standards that may be more restrictive. The RWQCBs generally elect to retain permitting authority over large and/or commercial or industrial on-site sewage disposal systems, depending on the volume and character of the wastewater.

LOCAL

City of Willows Sewer Master Plan Update (2008)

The City's 2008 Sewer Master Plan includes a description and maps of the City's wastewater collection system, system-wide flow projections, hydraulic models of system flows, an analysis of the system's capacity, a summary of system capacity improvements that are needed, and a summary of the current related CIP schedule and costs for wastewater system improvements.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities if it would:

- Require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects; and/or
- Result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the projects projected demand in addition to the providers existing commitments.

IMPACTS AND MITIGATION MEASURES

Impact 3.15-3: General Plan implementation has the potential to 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 (Less than Significant)

Currently, all wastewater collected from the City is treated at the WWTP. There are approximately 2,255 residential connections and 222 commercial/industrial connections. The City of Willows completed a major upgrade to the wastewater treatment plant (WWTP) by increasing the treatment capability from secondary to tertiary quality effluent with a rated capacity of 1.2 mgd (million gallons per day). The treatment system includes influent screening, extended aeration (biolac system), activated sludge with two secondary clarifiers, nine continuous backwash sand filters, disinfection with sodium hypochlorite, dechlorination using sodium bisulfite injection, equalization and emergency storage ponds, and sludge storage lagoons. The WWTP currently has a daily dry weather average flow of approximately 0.650 million gallons per day (650,000 gallons per day) from all customers in Willows WWTP service area.

As Willows continues to develop in the future, there will be an increased need for water and wastewater services, including a reliable source of recycled water. These needs have been addressed in the three utility districts' master plans and will require that the districts, in coordination with the City, continue to implement phased improvements to some pump stations, sewer mains, and the various wastewater treatment plants when triggered by growth.

While full buildout of the development contemplated in the proposed General Plan would increase the existing treatment demand at the districts' treatment plants, the proposed General Plan includes a range of policies designed to ensure an adequate wastewater treatment capacity for development. Specifically, General Plan Policy LU 6-3 requires all development projects to mitigate their infrastructure service impacts or demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

Periodic review and update of the Sewer Master Plans will be required and as growth continues to occur within the Planning Area. It may be necessary to identify future necessary system upgrades and capacity enhancements to meet infrastructure needs, prior to the approval of new development. Additions and expansions to the WWT would be accommodated on site. Future capacity improvements to infrastructure may be required over time, However, given that projected wastewater generation volumes associated with General Plan buildout are not expected to exceed the projected wastewater treatment volumes, this impact would be **less than significant**.

The policies and actions listed below would further assist in ensuring that adequate wastewater treatment and conveyance infrastructure is available to serve new growth projected under the proposed General Plan.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

LAND USE POLICIES

LU 6-1: Provide adequate infrastructure (i.e., streets, sewer, and storm drain) to meet the needs of existing and future development.

LU 6-2: Require development, infrastructure, and long-term planning projects to be consistent with all applicable infrastructure plans, including the California Water Service District's Urban Water Management Plan, and the City's Capital Improvement Program.

LU 6-3: Require all development projects to mitigate their infrastructure service impacts or demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

LU 6-4: Require the payment of impact fees for all new development.

LU 6-5: Design services and infrastructure to serve existing and planned land uses. Actions that will induce growth beyond planned levels are prohibited.

LAND USE ACTIONS

LU 6a: As part of the development review process, determine the potential impacts of development and infrastructure projects on public infrastructure, and ensure that new development contributes its fair share toward necessary on and off-site infrastructure.

LU 6b: Ensure that infrastructure is adequately sized to accommodate the proposed development and, if applicable, allow for extensions to future developments.

Impact 3.15-4: General Plan implementation may require or result in the relocation or construction of new or expanded wastewater facilities, the construction or relocation of which could cause significant environmental effects (Less than Significant)

Development allowed under the proposed General Plan would result in increased demand for water supplies, including water conveyance and treatment infrastructure. The proposed General Plan includes policies to ensure that water supplies and treatment are provided at acceptable levels and to ensure that development and growth does not outpace the provision of available infrastructure.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA. As such, this impact would be **less than significant**, and no additional mitigation is required.

The proposed General Plan includes policies designed to ensure adequate wastewater treatment capacity is available to serve development and to minimize the potential adverse effects of wastewater treatment. These policies are listed in Impact 3.15-3.

3.15.3 STORMWATER DRAINAGE

The information in this section focuses on the potential for the General Plan to result in the demand for new or expanded stormwater drainage facilities. Section 3.10 (Hydrology) includes an expanded analysis of water quality, flooding, and other stormwater related issues.

STORMWATER AND FLOOD CONTROL FACILITIES

The City of Willows Public Works Division is responsible for operating, maintaining, and improving the City's drainage and stormwater infrastructure, and facilities. Key areas of responsibility include the maintaining and improvements to streets, sewer, and storm drains. The City currently does not have an adopted storm drain master plan.

Regional Flood Control

North Willows County Service Area (formerly Storm Drain Maintenance District #2) Storm Drain Maintenance Districts. North Willows County Service Area provides service to an area northeast of Willows. This CSA, which is administered by the County Public Works Department, maintains natural drains and a pipeline system with a pump. The CSA has three long-range plans under consideration:

- Diversion of some drainage west of I-5.
- Development of standby power for the pumps.

Central Valley Flood Protection Plan (2012/2017 Update). The Central Valley Flood Protection Plan (CVFPP) was adopted by the Central Valley Flood Protection Board in 2012 and updated in 2017. The CVFPP is a guide to managing flood risk in the Central Valley and it will be updated every five years. The goal of the CVFPP is to improve flood risk management with the following supporting goals:

- Improve operations and maintenance
- Promote ecosystem functions
- Improve institutional support
- Promote multi-benefit projects

Flood infrastructure is to be planned and managed centrally, but O&M, flood response, and infrastructure implementation can be implemented either regionally or locally. The CVFPP promotes regional governance via local consolidation and collaboration among partnering agencies.

Reclamation Districts. Reclamation districts are governed by a board of trustees that are appointed by the County Board of Supervisors or are elected directly from the populations they serve (§50650). The board of trustees can consist of three, five or seven members and have the power to do all things necessary or convenient for accomplishing the purposes for which the reclamation district was formed (50900). The owners of the majority of acreage in the district may vote to adopt governing bylaws (§50370). A district may, by resolution of the board, provide a procedure for the

3.15 UTILITIES AND SERVICE SYSTEMS

collection charges and fees, by way of the tax bills of the county or counties in which such district is located (§50904).

There four reclamation districts in Glenn County, which are:

- Reclamation District No. 2047
- Reclamation District No. 2106
- Reclamation District No. 2140
- Reclamation District No. 1004

Reclamation District No. 2106 is a multicounty district, extending into Butte County. The District is approximately 49,549 acres in size, with approximately 35,507 acres located in Glenn County and approximately 14,402 acres located in Butte County. The District consists of approximately 439 parcels, 408 of which are found in Glenn County and 31 of which are located in Butte County. The Glenn Local Agency Formation Commission is the principal county LAFCO for Reclamation District No. 2106 as the majority of the parcels, along with the majority of the land value, lies within Glenn County.

Reclamation Districts 1004 and 2047 are also multicounty districts. Only a small portion of Reclamation District No. 1004, consisting of six parcels, totaling approximately 468 acres in area, is located within Glenn County. The remaining portion of Reclamation District No. 1004 is within Colusa County. As the majority of the assessed land value of Reclamation District No. 1004 is within Colusa County, the Colusa Local Agency Formation Commission is the principal county LAFCO for this District. As the principal county LAFCO, Colusa LAFCO is the agency that would act on annexations, detachments, SOI modifications and SOI Plans, and municipal services reviews for Reclamation District No. 1004. Likewise, a large portion of Reclamation District No. 2047, consisting of approximately 1,569 parcels totaling approximately 95,605 acres in size, is located within Glenn County. Even though a large portion of Reclamation District No. 2047 is within Glenn County, Colusa LAFCO is the principal county LAFCO for this district.

Levee Districts. Levee districts are governed by a three-member board of directors that are appointed by the County Board of Supervisors or are elected directly from the populations they serve. Levee districts may acquire by purchase, condemnation, gift or other action, drains, canals, sluices, bulkheads, watergates, levees, embankments, pumping plants and pipelines and to purchase, construct or otherwise acquire, maintain and keep in repair all things reasonable or convenient for the protection of the lands of the district from overflow and for the purpose of conserving or adding water to the sloughs and drains in the district. The district may co-operate and contract with the United States, the State of California, or any department or agency of either, in order to accomplish any of the purposes of the district.

There are three levee districts in Glenn County, which are:

- Levee District No. 1

- Levee District No. 2
- Levee District No. 3

Levee District No. 1 is located north and south of the unincorporated community of Glenn along the west side of the Sacramento River. The District consists of approximately 207 parcels and totals approximately 9,630 acres in size. The predominant land use within the District boundaries is agricultural, along with some agricultural processing facilities and scattered residential uses. The majority of the district is zoned for agricultural uses. The District has an estimated population of 300. The District is responsible for maintenance of the levee located on the west side of the Sacramento River, from the north border of Levee District No. 2 northwards for approximately 12 miles.

Levee District No. 2 is located in the Four Corners area of southeast Glenn County, along the west side of the Sacramento River. The District consists of approximately 130 parcels and totals approximately 5,620 acres in size. The predominant land use within the District boundaries is agricultural, along with some agricultural processing facilities and scattered residential uses. The majority of the district is zoned for agricultural uses. The District has an estimated population of 115. The District is responsible for maintenance of the levee located on the west side of the Sacramento River, from the Colusa County border northwards for approximately 4.9 miles.

Levee District No. 3 is located in the southeast Glenn County area, east of the Sacramento River, and includes the unincorporated community of Butte City. The District consists of approximately 247 parcels and totals approximately 12,820 acres in size. The predominant land use within the District boundaries is agricultural, along with some agricultural processing facilities. The unincorporated community of Butte City, which is developed with approximately 40 dwellings, is located within the District. The majority of the district is zoned for agricultural uses, although the Butte City area is zoned for single-family residential uses. The District has an estimated population of 115. The District is responsible for maintenance of the levee located on the east side of the Sacramento River, from the Colusa County border northwards for a distance of approximately 12 miles.

REGULATORY SETTING - STORMWATER DRAINAGE

FEDERAL

Clean Water Act (CWA)

The CWA, initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the act establishes a framework for regulating municipal and industrial stormwater discharges under the National Pollutant Discharge Elimination System (NPDES) Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit.

The State Water Resources Control Board (SWRCB) is responsible for implementing the Clean Water Act and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for storm water discharges (individual permits and general permits). The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0005-DWQ) for small Municipal Separate Storm Sewer Systems (MS4s) covered under the CWA to efficiently regulate numerous storm water discharges under a single permit.

Pursuant to the CWA, Willows participates in the Santa Clara Valley Urban Runoff Pollution Prevention Program (SCVURPPP) as a co-permittee under the California Regional Water Quality Control Board's San Francisco Bay Region Municipal Regional Stormwater NPDES Permit (Order R2-2015-0049), also referred to as the "MS4 Permit." Permit number CAS612008 became effective in November of 2015. The City has typical urban runoff water quality issues and is working on implementing a 70 percent reduction in trash load by July 1, 2017, focused around trash capture on 100 acres of high or very high trash generating land uses.

National Pollutant Discharge Elimination System (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, oceans, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the EPA Regional Administrator (EPA Region 9). The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti-degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWA.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and therefore must be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the RWQCB has adopted several general NPDES permits, each of which regulates numerous discharges of similar types of wastes. The SWRCB has issued general permits for stormwater runoff from construction sites statewide. Stormwater discharges from industrial and construction activities in the San Francisco Bay Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

STATE

Department of Water Resources

The Department of Water Resources' (DWR) major responsibilities include preparing and updating the California Water Plan to guide development and management of the State's water resources, planning, designing, constructing, operating, and maintaining the State Water Resources Development System, protecting and restoring the Sacramento-San Joaquin Delta, regulating dams, providing flood protection, assisting in emergency management to safeguard life and property, educating the public, and serving local water needs by providing technical assistance. In addition, the DWR cooperates with local agencies on water resources investigations; supports watershed and river restoration programs; encourages water conservation; explores conjunctive use of ground and surface water; facilitates voluntary water transfers; and, when needed, operates a State drought water bank.

California Water Code

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a Water Quality Control Plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

Water Quality Control Plan (Basin Plan) for the Central Valley Region

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities.

The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

State Water Resources Control Board (State Water Board) Storm Water Strategy

The Storm Water Strategy is founded on the results of the Storm Water Strategic Initiative, which served to direct the State Water Board's role in storm water resources management and evolve the Storm Water Program by a) developing guiding principles to serve as the foundation of the storm water program, b) identifying issues that support or inhibit the program from aligning with the guiding principles, and c) proposing and prioritizing projects that the Water Boards could implement to address those issues. The State Water Board staff created a strategy-based document called the Strategy to Optimize Management of Storm Water (STORMS). STORMS includes a program vision, missions, goals, objectives, projects, timelines, and consideration of the most effective integration of project outcomes into the Water Board's Storm Water Program.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities if it would:

- Require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects.

IMPACTS AND MITIGATION MEASURES

Impact 3.15-5: General Plan implementation may require or result in the relocation or construction of new or expanded storm water drainage facilities, the construction or relocation of which could cause significant environmental effects (Less than Significant)

Development under the proposed General Plan may result in increased areas of impervious surfaces throughout the Planning Area, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure. The infrastructure and facilities necessary to serve new growth would involve development of some facilities on-site within new development projects, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way. The specific impacts of providing new and expanded drainage facilities cannot be determined at this time, as the General Plan does not propose or approve any specific development project nor does it designate specific sites for new or expanded public facilities.

Stormwater drainage and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan.

The proposed General Plan includes policies and actions designed to ensure adequate drainage infrastructure is available to serve development, to minimize the potential adverse effects of stormwater conveyance, and to ensure that development does not move forward until adequate drainage capacity exists. Specifically, the proposed General Plan requires all development projects to demonstrate how storm water runoff will be detained or retained on-site and/or conveyed to the nearest drainage facility as part of the development review process and as required by the City's NPDES Municipal Regional Permit. Project applicants are required to mitigate any drainage impacts as necessary and the General Plan requires the City to maintain drainage channels in a naturalized condition to the greatest extent feasible, and as feasible to include pervious surfaces.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential

environmental impacts, consistent with the requirements of CEQA. As such, this is a **less than significant** impact and no additional mitigation is required.

The policies and actions listed below would further ensure that there is adequate stormwater drainage and flood control infrastructure to serve future development under the General Plan, and would ensure that future drainage and flood control infrastructure projects do not result in adverse environmental impacts.

GENERAL PLAN POLICIES AND ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

SAFETY SERVICES POLICIES

SA 2.1: Support and participate in planning efforts 3.14 at the local, regional, State, and Federal levels to improve flood management facilities and dam safety.

SA 2.2: Require all new development projects to demonstrate how storm water runoff will be detained or retained on-site, treated, and/or conveyed to the nearest drainage facility as part of the development review process. Project applicants shall demonstrate that project implementation would not result in increases in the peak flow runoff to adjacent lands or drainage facilities that would exceed the design capacity of the drainage facility or result in an increased potential for off-site flooding.

SA 2.3: Ensure that construction activities and new development projects will not result in adverse impacts to existing properties and flood control and drainage structures.

SA 2.7: Encourage flood control measures that respect natural drainage features, vegetation, and natural waterways, while still providing for adequate flood control and protection.

SA 2.8: Ensure that any development activity that requires a grading permit does not impact adjacent properties, local creeks and storm drainage systems by designing and building the site to drain properly to minimize drainage issues and erosion.

SAFETY SERVICES ACTIONS

SA-2a: As part of the development review process require new development projects to prepare hydraulic and storm drainage studies as necessary to define the net increase in storm water run-off resulting from construction and require mitigation to reduce impacts. Drainage and grading plans shall identify BMP protections and include standards established and recommended by the City that shall be incorporated into development.

3.15.4 SOLID WASTE

Waste Management, a private garbage collection company, provides residential (single family and multi-family) and commercial garbage, recycling, and green waste collection services within the city limits.

KEY TERMS

Class I landfill: A landfill that accepts for disposal 20 tons or more of municipal solid waste daily (based on an annual average); or one that does not qualify as a Class II or Class III municipal solid waste landfill.

Class II landfill: A landfill that (1) accepts less than 20 tons daily of municipal solid waste (based on an annual average); (2) is located on a site where there is no evidence of groundwater pollution caused or contributed by the landfill; (3) is not connected by road to a Class I municipal solid waste landfill, or, if connected by road, is located more than 50 miles from a Class I municipal solid waste landfill; and (4) serves a community that experiences (for at least three months each year) an interruption in access to surface transportation, preventing access to a Class I landfill, or a community with no practicable waste management alternative.

Class III landfill: A landfill that is not connected by road to a Class I landfill or a landfill that is located at least 50 miles from a Class I landfill. Class III landfills can accept no more than an average of one ton daily of ash from incinerated municipal solid waste or less than five tons daily of municipal solid waste.

Transfer station: A facility for the temporary deposition of some wastes. Transfer stations are often used as places where local waste collection vehicles will deposit their waste cargo prior to loading into larger vehicles. These larger vehicles will transport the waste to the end point of disposal or treatment.

WASTE COLLECTION SERVICES

The City of Willows has a contract with Waste Management to collect solid waste, recycling, and green waste from the residential and commercial sector. Waste Management is a private garbage collection company, provides residential (single family and multi-family) and commercial garbage, recycling, and green waste collection services within the city limits. The company's network includes 346 transfer stations 293 active landfill disposal sites, 146 recycling plants, 111 beneficial-use landfill gas projects and six independent power production plants. Waste Management offers environmental services to nearly 21 million residential, industrial, municipal and commercial customers in 48 United States, Canada, and Puerto Rico. With 26,000 collection and transfer vehicles, the company has the largest trucking fleet in the waste industry. Together with its competitor Republic Services, Inc, the two handle more than half of all garbage collection in the United States. With nearly 26,000 collection and transfer vehicles, waste management operates the largest trucking fleet in the waste industry, collecting over 80 million tons of solid waste each year. The company serves more than 20 million customers, offering a wide range of services, from picking up household trash at a single-subscription residence to providing comprehensive waste programs

3.15 UTILITIES AND SERVICE SYSTEMS

for large national customers with hundreds of locations. Refuse, recycling, and green waste bins are picked up once per week in the City of Willows.

The City of Willows has a three (3) cart system for the collection of garbage, recycling and green waste. The three-cart system was established to enable residents to assist in reducing the amount of waste that is dumped in landfills. Recycling service is provided for newspapers, cardboard (including cereal boxes, soda boxes, etc.), glass bottles and jars, aluminum, tin, steel, plastic containers, and all junk mail and phone books.

WASTE DISPOSAL FACILITIES

The vast majority of landfill disposal from the City of goes to the Glenn County Landfill, owned and operated by the Glenn County Waste & Recycling Department.

Glenn County Landfill & Transfer Station

Glenn County owns and operates the 195+ acre Glenn County Landfill Site, located on County Road 33, west of Artois. It was a Class III landfill (a facility at which protection is provided to water quality from municipal, industrial and agricultural wastes) with a maximum permitted capacity of 2,400,000 cubic yards, however, the landfill facility closed in 2020. This site used to receive agricultural waste, construction and demolition waste, dead animal, industrial, inert, mixed municipal waste, and tires.

The Glenn County Transfer Station is a municipal solid waste, materials recovery facility, transfer station, and anaerobic digestion facility. These facilities and associated facilities, equipment and operations are to manage municipal solid waste from Glenn County (including Willows) and potentially from the City of Chico. Waste collected at the transfer station that cannot be recycled is distributed to various out-of-county landfills for disposal.

HAZARDOUS WASTE DISPOSAL

Glenn County Air Pollution Control District implements the Hazardous Waste Generator Program throughout Glenn County. The purpose of this program is to ensure that all hazardous waste generated in Glenn County businesses is properly handled, recycled, stored and disposed. Air Pollution staff inspect facilities that generate hazardous waste, investigate reports of illegal hazardous waste disposal, and respond to emergency spills of hazardous chemicals.

SOLID WASTE GENERATION RATES AND VOLUMES

The California Department of Resources Recycling and Recovery (CalRecycle) tracks and monitors solid waste generation rates on a per capita basis. Per capita solid waste generation rates and total annual solid waste disposal volumes for Glenn County between 2014 and 2018 are shown in Table 3.15-5 below.

TABLE 3.15-5: SOLID WASTE GENERATION RATES IN GLENN COUNTY

YEAR	WASTE GENERATION RATES (POUNDS/PERSON/DAY)		TOTAL DISPOSAL TONNAGE (TONS/YEAR)
	PER RESIDENT	PER EMPLOYEE	
2014	3.9	28,465	20,236
2015	3.8	28,530	20,038
2016	4.2	28,604	21,758
2017	3.8	28,694	20,046
2018	4.4	28,762	23,232

SOURCE: [HTTP://WWW.CALRECYCLE.CA.GOV/LGCENTRAL/REPORTS/JURISDICTION/REVIEWREPORTS.ASPX](http://www.calrecycle.ca.gov/LGCentral/Reports/Jurisdiction/ReviewReports.aspx) ACCESSED JUNE 2019.

As shown in the Table 3.15-5 above, the per capita waste generation rate increased from 3.9 to 4.4 lbs/person/day over the 5 year (2014-2018) period, however, the total annual disposal tonnage in Glenn County increased by 2,996 tons over the 2014 to 2018 time span. With the passage of SB 1016, per capita disposal rate is used to determine the diversion progress of a county and not the jurisdictional diversion rates. Therefore, a population increase resulting in the generation of more overall county waste does not affect the jurisdiction's ability to meet its waste goals. The County's waste disposal rate targets are shown in Table 3.15-5.

As shown in the above table, for the years 2014 through 2018 (the latest year of data available), the per capita waste generation rate in Glenn County was at the lowest level in 2015; and the total annual disposal tonnage in Glenn County was at their lowest level (during this period) in 2015. Glenn County, partnered by the City of Willows, complied with State requirements to reduce the volume of solid waste through recycling and reuse of solid waste. Glenn County achieved the County's per capita disposal target rates for 2018 of 4.8 and 19.4 pounds per person per day for residents and employees, respectively, as established by CalRecycle.

REGULATORY SETTING – SOLID WASTE

FEDERAL

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. After several amendments, the current Act governs the management of solid and hazardous waste and underground storage tanks (USTs). RCRA was an amendment to the Solid Waste Disposal Act of 1965. RCRA has been amended several times, most significantly by the Hazardous and Solid Waste Amendments (HSWA)

of 1984. RCRA is a combination of the first solid waste statutes and all subsequent amendments. RCRA authorizes the Environmental Protection Agency (EPA) to regulate waste management activities. RCRA authorizes states to develop and enforce their own waste management programs, in lieu of the Federal program, if a state's waste management program is substantially equivalent to, consistent with, and no less stringent than the Federal program.

STATE

California Integrated Waste Management Act (AB 939 and SB 1322)

The California Integrated Waste Management Act of 1989 (AB 939 and SB 1322) requires every city and county in the state to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan that identifies how each jurisdiction will meet the mandatory state waste diversion goals of 25% by 1995 and 50% by 2000. The purpose of AB 939 and SB 1322 is to “reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible.” The term “integrated waste management” refers to the use of a variety of waste management practices to safely and effectively handle the municipal solid waste stream with the least adverse impact on human health and the environment. The Act has established a waste management hierarchy, as follows: Source Reduction; Recycling; Composting; Transformation; and Disposal.

California Integrated Waste Management Board Model Ordinance

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Re-use and Recycling Access Act of 1991 (§42900-42911 of the Public Resources Code) directs the California Integrated Waste Management Board (CIWMB) to draft a “model ordinance” relating to adequate areas for collecting and loading recyclable materials in development projects. The model ordinance requires that any new development project, for which an application is submitted on or after September 1, 1994, include “adequate, accessible, and convenient areas for collecting and loading recyclable materials.” For subdivisions of single family detached homes, recycling areas are required to serve only the needs of the homes within that subdivision.

LOCAL

Willows Municipal Code, Chapter 8.05: Garbage, Rubbish and Weeds

Section 8.05 of the Willows Municipal Code provides rules and regulations regarding garbage collection and disposal. It includes general provisions, such as the unlawful accumulations of garbage and burying garbage (Article I), collection and transportation of garbage (Article II), weeds and rubbish removal (Article III), waste disposal sites (Article IV) and a description of fees and other requirements.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities if it would:

- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; and/or
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

IMPACTS AND MITIGATION MEASURES

Impact 3.15-6: General Plan implementation would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, and would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals (Less than Significant)

Future development of projects as contemplated under the proposed General Plan may increase the population within the Planning Area at buildout to approximately 7,993 persons. As described above, the Glenn County disposed of 23,232 tons of solid waste in 2018 achieving a disposal rate of 4.4 PPD per resident. Assuming these disposal rates remain constant throughout the life of the General Plan, the new growth under General Plan buildout would result in an increase of approximately 7,700 pounds per day of solid waste, which equals 3.85 tons per day or 1,405.25 tons of solid waste per year.

Glenn County owns and operates the 195+ acre Glenn County Landfill Site, located on County Road 33, west of Artois. It was a Class III landfill (a facility at which protection is provided to water quality from municipal, industrial and agricultural wastes) with a maximum permitted capacity of 2,400,000 cubic yards, however, the landfill facility closed in 2020. This site used to receive agricultural waste, construction and demolition waste, dead animal, industrial, inert, mixed municipal waste, and tires.

The Glenn County Transfer Station is a municipal solid waste, materials recovery facility, transfer station, and anaerobic digestion facility. These facilities and associated facilities, equipment and operations are to manage municipal solid waste from Glenn County (including Willows) and potentially from the City of Chico. Waste collected at the transfer station that cannot be recycled is distributed to various out-of-county landfills for disposal.

The City's projected increase in solid waste generation associated with future buildout of the proposed General Plan is within the permitted capacity of the new Glenn County Solid Waste Facilities. Therefore, this is a **less than significant** impact.

Future projects within the Planning Area would be required to comply with applicable state and local requirements including those pertaining to solid waste, construction waste diversion, and recycling. While there is adequate permitted landfill capacity to accommodate future growth, the proposed General Plan includes actions to further reduce the project's impact on solid waste services, as identified below. The General Plan would not exceed the permitted capacity of the landfill serving the city, and the General Plan complies with regulations related to solid waste.

GENERAL PLAN ACTIONS THAT MINIMIZE POTENTIAL IMPACTS

CONSERVATION AND OPEN SPACE ELEMENT POLICIES

COS 8.1: Provide adequate waste disposal, recycling, and reuse services for present and future residents and businesses, including programs that improve public access to solid waste collection and recycling facilities.

COS 8.2: Participate in source reduction and recycling efforts to reduce the amount of solid waste sent to the landfill and extend the life of the landfill.

COS 8.3: Comply with Assembly Bill 939 source reduction and recycling requirements of 50 percent diversion of solid waste from landfills. Continue to strengthen local recycling efforts in order to assist the State in meeting the Statewide source reduction, recycling, and composting requirements established by Assembly Bill 341.

COS 8.4: Increase the City's role in the source reduction and recycling components of waste management through recycling programs at City facilities to reduce the quantity of City-generated waste.

COS 8.5: Ensure that special waste—including hazardous materials, tires, medications, infectious waste, asbestos waste, construction waste, and electronic waste—are recycled and disposed of in a manner that is safe for the environment, residents, and employees.

COS 8.6: Educate the public on ways to divert household waste from the landfill, including education programs on reducing, reusing, and recycling material.

COS 8.7: Consistent with SB 1383 conduct education and outreach on organics recycling to all residents, businesses (including those that generate edible food that can be donated) haulers, solid waste facilities, and local food banks and other food recovery organizations.

SAFETY ELEMENT POLICIES

SA 5.1: Encourage residents and businesses to minimize the use of toxic materials and products including the application of pesticides.

SA 5.2: Encourage local producers and users of hazardous materials to reduce the amounts of hazardous materials generated.

SA 5.3: Require hazardous waste generated within the City to be disposed of in a safe manner, consistent with all applicable local, State, and Federal laws.

SA 5.4: Require hazardous materials to be stored in a safe manner, consistent with all applicable local, State, and Federal laws.

SA 5.5: Require compliance with the Glenn County Air Pollution Control District Hazardous Waste Generator Program.

CONSERVATION AND OPEN SPACE ELEMENT ACTIONS

COS-8a: Continue existing, and develop new, diversion strategies (including source reduction, recycling, composting and yard waste programs) to reduce solid waste disposal volume to meet the State-mandated level.

COS-8b: Pursue public funding sources, such as grants, to reduce fiscal impacts of continued implementation of recycling programs.

COS-8c: Continue to implement, and update as necessary, the City's Municipal Code to regulate issues related to solid waste, including but not limited to Chapter 8.05 (Garbage, Rubbish and Weeds).

COS-8d: Develop and promote citywide reuse events such as a Community Garage Sale, and encourage community groups and organizations to pursue reuse events and activities to prevent reusable items from going into the landfill.

COS-8e: Provide a conservation page (or similar page) on the City's website that provides links to resources and provides information regarding local and regional recycling programs, opportunities for reuse of materials, composting strategies, organics recycling, and opportunities for the disposal of hazardous waste.

SAFETY ELEMENT ACTIONS

SA-5a: Work with existing business to require acceptance of oils, paints and other recyclable hazardous materials.

SA-5b: Coordinate with the Glenn County Air Pollution Control District as the Certified Unified Program Agency (CUPA) to ensure that businesses that handle hazardous materials prepare and file a Hazardous Materials Management Plan (HMMP), and Hazardous Materials Inventory Statement (HMIS). The HMMP and HMIS shall consist of general business information, basic information on the location, type, quantity, and health risks of hazardous materials, and emergency response and training plans.

SA-5c: Provide educational opportunities for generators of small quantity, household, and urban agriculture waste products regarding their responsibilities for source reduction and proper and safe hazardous waste management and disposal.

3.15 UTILITIES AND SERVICE SYSTEMS

SA-5d: Provide information about drop-off programs for the local disposal of household hazardous waste offered in Glenn County. The availability of the programs should be widely publicized throughout the community.

SA-5e: Refer all permits for new projects or major additions to existing uses located on sites identified by the State as having or containing likely hazardous substances or materials to the Glenn County Air Pollution Control District to ensure compliance with applicable State and local regulations. If warranted, identify and require mitigation measures to ensure the exposure to hazardous materials from historical uses has been mitigated to acceptable levels consistent with EPA and/or DTSC standards.

This section provides a background discussion of the hazards associated with wildfires in the Planning Area. Additional information related to fire hazards including the discussion of fire suppression resources is located within Chapter 3.13, Public Services and Recreation, and information related to Fire Hazards including Fire Hazard Mapping is included in Chapter 3.8 (Hazards and Hazardous Materials) of this report.

No comments were received during the NOP comment period regarding this environmental topic.

3.16.1 ENVIRONMENTAL SETTING

FIRE HAZARD SEVERITY ZONES

The state has charged the California Department of Forestry and Fire Protection (CalFire) with the identification of Fire Hazard Severity Zones (FHSZ) within State Responsibility Areas (SRAs). In addition, CalFire must recommend Very High Fire Hazard Severity Zones (VHFHSZ) identified within any Local Responsibility Areas (LRAs). The FHSZ maps are used by the State Fire Marshall as a basis for the adoption of applicable building code standards.

The Planning Area includes LRAs and a responsibility area (Sharpe Army Depot). No State or Federal Responsibility Areas are included within City boundaries.

Local Responsibility Areas

The Willows Planning Area is located within a Local Responsibility Area (LRA). CalFire has determined that the City of Willows has no Very High Fire Hazard Severity Zones (VHFHSZ) within Local Responsibility Areas.

State Responsibility Areas

There are no SRAs within the vicinity of the Planning Area.

Federal Responsibility Areas

There are no FRAs within the vicinity of the Planning Area.

3.16.2 REGULATORY SETTING

FEDERAL ---

FY 2001 Appropriations Act

Title IV of the Appropriations Act required the identification of “Urban Wildland Interface Communities in the Vicinity of Federal Lands that are at High Risk from Wildfire” by the U.S. Departments of the Interior and Agriculture.

Disaster Mitigation Act (2000)

Section 104 of the Disaster Mitigation Act of 2000 (Public Law 106-390) enacted Section 322, Mitigation Planning of the Robert T. Stafford Disaster Relief and Emergency Assistance Act, which created incentives for state and local entities to coordinate hazard mitigation planning and implementation efforts, and is an important source of funding for fuels mitigation efforts through hazard mitigation grants.

National Fire Plan 2000

The summer of 2000 marked a historic milestone in wildland fire records for the United States. Dry conditions (across the western United States), led to destructive wildfire events on an estimated 7.2 million acres, nearly double the 10-year average. Costs in damages including fire suppression activities were approximately 2.1 billion dollars. Congressional direction called for substantial new appropriations for wildland fire management. This resulted in action plans, interagency strategies, and the Western Governor’s Association’s “A Collaborative Approach for Reducing Wildland Fire Risks to Communities and the Environment - A 10-Year Comprehensive Strategy - Implementation Plan”, which collectively became known as the National Fire Plan. This plan places a priority on collaborative work within communities to reduce their risk from large-scale wildfires.

Healthy Forest Initiative 2002/Healthy Forest Restoration ACT 2003

In August 2002, the Healthy Forests Initiative (HFI) was launched with the intent to reduce the severe wildfires risks that threaten people, communities, and the environment. Congress then passed the Healthy Forests Restoration Act (HFRA) on December 3, 2003 to provide the additional administrative tools needed to implement the HFI. The HFRA strengthened efforts to restore healthy forest conditions near communities by authorizing measures such as expedited environmental assessments for hazardous fuels projects on federal land. This Act emphasized the need for federal agencies to work collaboratively with communities in developing hazardous fuel reduction projects and places priority on fuel treatments identified by communities themselves in their Community Wildfire Protection Plans.

Department of the Interior Department Manual Part 620

Wildland Fire Management. Part 620 of the Department of the Interior Departmental Manual pertains to wildland fire management policies, with the goal of providing an integrated approach to wildland fire management. The guiding principles of the plan emphasize the need for public

health and safety considerations, risk management protocols, inter-agency collaboration, and economic feasibility of wildfire management practices, as well as the ecological role of wildfires.

STATE

California Government Code Section 65302

This section, which establishes standards for developing and updating General Plans, includes fire hazard assessment and Safety Element content requirements.

California Strategic Fire Plan

This statewide plan is a strategic document, which guides fire policy for much of California. The plan is aimed at reducing wildfire risk through pre-fire mitigation efforts tailored to local areas through assessments of fuels, hazards, and risks.

California State Multi-Hazard Mitigation Plan

The purpose of the State Multi-Hazard Mitigation Plan (SHMP) is to significantly reduce deaths, injuries, and other losses attributed to natural- and human-caused hazards in California. The SHMP provides guidance for hazard mitigation activities emphasizing partnerships among local, state, and federal agencies as well as the private sector.

California Government Code

California Government Code Section 65302.5 requires the State Board of Forestry and Fire Protection to provide recommendations for a local jurisdiction's General Plan fire safety element when the jurisdiction amends its general plan. While not a direct and binding fire prevention requirement for individuals, general plans that adopt the Board's recommendations will include goals and policies that provide for contemporary fire prevention standards for the jurisdiction. While the State Board of Forestry and Fire Protection has not specifically commented on the Proposed General Plan at the time that this EIR was written, the Proposed General Plan has been developed to include best practices to ensure contemporary fire prevention standards, as described in greater detail under the impact discussions below.

California Government Code Section 51175 defines Very High Fire Hazard Severity Zones and designates lands considered by the State to be a very high fire hazard.

California Government Code Section 51189 directs the Office of the State Fire Marshal to create building standards for wildland fire resistance. The code includes measures that increase the likelihood of a structure withstanding intrusion by fire (such as building design and construction requirements that use fire-resistant building materials) and provides protection of structure projections (such as porches, decks, balconies and eaves), and structure openings (such as attics, eave vents, and windows).

California Public Resource Code

The State's Fire Safe Regulations are set forth in Public Resources Code Section 4290, which include the establishment of SRAs.

Public Resources Code Section 4291 sets forth defensible space requirements, which are applicable to anyone that ...owns, leases, controls, operates, or maintains a building or structure in, upon, or adjoining a mountainous area, forest-covered lands, brush-covered lands, grass-covered lands, or land that is covered with flammable material (§4291(a)).

Public Resources Code Sections 4292-4296 and 14 CCR 1256, Fire Prevention for Electrical Utilities, address the vegetation clearance standards for electrical utilities. They include the standards for clearing around energy lines and conductors such as power-line hardware and power poles. These regulations are critical to wildland fire safety because of the substantial number of power lines in wildlands, the historic source of fire ignitions associated with power lines, and the extensive damage that results from power line caused wildfires in severe wind conditions.

Assembly Bill 337

Per Assembly Bill 337, local fire prevention authorities and CalFire are required to identify VHFHSZs in LRAs. Standards related to brush clearance and the use of fire resistant materials in fire hazard severity zones are also established.

Uniform Fire Code

The Uniform Fire Code (UFC) establishes standards related to the design, construction, and maintenance of buildings. The standards set forth in the UFC range from designing for access by firefighters and equipment and minimum requirements for automatic sprinklers and fire hydrants to the appropriate storage and use of combustible materials.

Senate Bill No. 1241

California Senate Bill No. 1241 requires that the Safety Element component of city or county general plans to incorporate fire risk related to SRAs and Very High Fire Hazard Severity Zones.

Code of Regulations Title 8 (Cal/OSHA)

In accordance with CCR, Title 8, Section 1270 and Section 6773 (Fire Prevention and Fire Protection and Fire Equipment), the Occupational Safety and Health Administration (Cal OSHA) establishes fire suppression service standards. The standards range from fire hose size requirements to the design of emergency access roads.

Code of Regulations Title 14 (Natural Resources)

Division 1.5 (Department of Forestry and Fire Protection), Title 14 of the CCR establishes a variety of wildfire preparedness, prevention, and response regulations.

Code of Regulations Title 19 (Public Safety)

Title 19 of the CCR establishes a variety of emergency fire response, fire prevention, and construction and construction materials standards.

3.16.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed Project will have a significant impact related to wildfires if:

- Located in or near State Responsibility Areas or lands classified as very high fire hazard severity zones, the project would:
 - Substantially impair an adopted emergency response plan or emergency evacuation plan.
 - Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
 - Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
 - Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

IMPACTS AND MITIGATION MEASURES

Impact 3.16-1: General Plan implementation would not have a significant impact related to wildfire risks associated with lands in or near State Responsibility Areas or lands classified as very high fire hazard severity zones (No Impact)

The Planning Area is not located in or near any State Responsibility Areas and there are no lands classified as very high fire hazard severity zones (VHFHSZ) within or near the Planning Area. Therefore, the General Plan would have *no impact* related to wildfire risks associated with lands in or near State Responsibility Areas or lands classified as very high fire hazard severity zones.

CEQA requires an EIR to evaluate a project's effects in relationship to broader changes that are occurring or that may foreseeably occur, in the surrounding environment. Accordingly, this chapter presents discussion of CEQA-mandated analysis for cumulative impacts, irreversible impacts, and growth inducement associated with the proposed General Plan.

4.1 CUMULATIVE SETTING AND IMPACT ANALYSIS

INTRODUCTION

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the General Plan. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively Considerable," as defined in section 15065(a)(3), means that "the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects" (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

...the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

1) Either:

(A) A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,

(B) A summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

CUMULATIVE SETTING

Under CEQA, the discussion of cumulative impacts should focus on the severity of the impacts and the likelihood of their occurrence. The geographic scope for the cumulative analysis covers the entire Willows Planning Area, which includes the City limits and the Sphere of Influence, as shown on Figure 2.0-2 (see Chapter 2.0: Project Description). It should be noted that, for some environmental topics, the geographic scope for the cumulative analysis also covers the boundaries of Glenn County, the Air Basin, and/or other jurisdictional boundaries that are relevant to the particular environmental topic.

In most cases in this EIR, the buildout analysis utilizes a 20-year horizon, and 2040 is assumed to be the buildout year of the General Plan. The year 2040 is used as the benchmark year for the cumulative analysis contained in this EIR. This year was chosen based on the fact that the General Plan was developed as a 20-year plan for Willows, and the General Plan is scheduled for adoption in late 2022.

Land Use/Growth Projections

Table 4.0-1 includes a comparison of existing conditions, the current General Plan Land Use Map, and the proposed General Plan Land Use Map in terms of population, housing units, nonresidential development square footage, jobs, and the jobs-to-housing ratio. As shown in table 4.0-1 buildout of the proposed General Plan could yield a total of up to 3,421 housing units, a population of 8,689 people, 2,157,625 square feet of non-residential building square footage, and 3,501 jobs within the Planning Area. This represents development growth over existing conditions of up to 963 new housing units, 2,446 people, 786,233 square feet of new non-residential building square footage and 1,310 jobs.

TABLE 4.0-1: COMPARATIVE GROWTH PROJECTIONS, EXISTING GENERAL PLAN LAND USE MAP AND PROPOSED LAND USE MAP

<i>ALTERNATIVE</i>	<i>POPULATION</i>	<i>DWELLING UNITS</i>	<i>NON-RESIDENTIAL SQUARE FEET OF DEVELOPMENT</i>	<i>JOBS</i>	<i>JOBS PER HOUSING UNIT</i>
<i>EXISTING CONDITIONS</i>					
	6,243	2,458	1,371,392	2,191	0.89
<i>NEW GROWTH</i>					
Proposed General Plan	2,446	963	786,233	1,310	1.36
Existing General Plan	970	382	726,096	1,210	3.17
<i>TOTAL BUILDOUT GROWTH: EXISTING PLUS NEW GROWTH</i>					
Proposed General Plan	8,689	3,421	2,157,625	3,501	1.02
Existing General Plan	7,214	2,840	2,097,488	3,401	1.20

Source: DE Novo Planning Group 2022

Existing land uses in the Willows Planning Area can be characterized in broad terms of residential, mixed use, public facilities, commercial and office, manufacturing and industrial, and open space. Table 4.0-2 describes the existing land uses. The predominant land use in the Planning Area, in terms of total acreage, is Low Density Residential within the City limits, and Intensive Agriculture within the SOI.

4.0 OTHER CEQA-REQUIRED TOPICS

TABLE 4.0-2 EXISTING LAND USES IN THE PLANNING AREA

<i>LAND USE</i>	<i>TOTAL PLANNING AREA ACREAGE</i>	<i>PARCELS</i>	<i>PERCENT OF AREA</i>
City	1,454.12	2297	100.0%
Commercial/Industrial Combining Use	193.47	25	1.1%
Entryway	23.55	78	3.4%
General Commercial	109.65	220	9.6%
General Industrial	101.92	23	1.0%
Highway Commercial	61.89	38	1.7%
Light Industrial	157.88	30	1.3%
Low Density Residential	488.57	1609	70.0%
Multiple Family Residential	33.15	63	2.7%
Office and Professional	44.98	141	6.1%
Open Space	42.81	5	0.2%
Public Facilities and Services	168.73	62	2.7%
ROW/Canal	27.51	3	0.1%
SOI	3,599.09	722	100.0%
Agricultural/Residential	84.76	3	0.4%
Business Park	44.13	2	0.3%
Community Commercial	25.15	8	1.1%
General Agriculture	320.36	12	1.7%
Highway and Visitor Service Commercial	15.54	5	0.7%
Industrial	237.12	25	3.5%
Intensive Agriculture	1,682.80	41	5.7%
Multiple Family Residential	24.35	14	1.9%
Public Facilities	285.30	8	1.1%
Rural Residential	240.77	36	5.0%
Service Commercial	116.28	28	3.9%
Single Family Residential	158.20	313	43.4%
Suburban Residential	364.32	227	31.4%
Grand Total	5,053.21	3,019	

**NOTE: THE WILLOWS SOI INCLUDES GLENN COUNTY'S LAND USE DESIGNATIONS.*

SOURCES: GLENN COUNTY, 2019; GIS LAND USE DATA FILE; DE NOVO PLANNING GROUP, 2022.

CUMULATIVE EFFECTS OF THE PROJECT

Method of Analysis

Although the environmental effects of an individual project may not be significant when that project is considered separately, the combined effects of several projects may be significant when considered collectively. Section 15130 of the CEQA Guidelines requires a reasonable analysis of a project's cumulative impacts, which are defined as "two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." The cumulative impact that results from several closely related projects is: the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (State CEQA Guidelines 15355[b]). Cumulative impact analysis may be less detailed than the analysis of the project's individual effects (State CEQA Guidelines 15130[b]).

In order to assess cumulative impacts, an EIR must analyze either a list of past, present, and probable future projects (referred to as the "list approach") or a summary of projections contained in an adopted general plan or related planning document (referred to as the "projection method"). Because of the programmatic nature of the Willows General Plan, this Draft EIR uses the **projection method** for the cumulative analysis and considers buildout of the proposed General Plan in addition to buildout of the other General Plans within the County, as summarized and addressed in the Glenn County 2020 Regional Transportation Plan (2020 RTP). Development of the RTP included review of land use plans for each jurisdiction within Glenn County, including:

- Glenn County
- City of Willows
- City of Orland

According to the US Census, the population of Glenn County increased by approximately 15.1% each decade from 1970 to 2010. During the 40-year period, the population grew from 17,521 to 28,122. The California DOF projects that the population of Glenn County will increase 11.5% between 2020 and 2040, which translates to an average annual increase of 0.57%. Over the 20 year lifetime of the Regional Transportation Plan, the population of 29,585 is expected to increase to 32,977 by 2040.

Cumulative Impacts

Cumulative impacts for most issue areas are not quantifiable and are therefore discussed in general qualitative terms as they pertain to development patterns in the surrounding region. An exception to this is a topic like traffic, which may be quantified by estimating future traffic patterns, pollutant emitters, etc. and determining the combined effects that may result. In consideration of the cumulative scenario described above, the proposed project may result in the following cumulative impacts.

AESTHETICS AND VISUAL RESOURCES

Impact 4.1: Cumulative degradation of the existing visual character of the region (Less than Cumulatively Considerable)

While the Willows Planning Area contains areas and viewsheds with relatively high scenic value, there are no officially designated scenic vista points in the Planning Area. Additionally, as described in Chapter 3.1, there are no officially designated scenic highways located in the vicinity of Willows. Significant visual resources in the Planning Area include distant foothill views, and views of agricultural lands surrounding the city.

The most significant visual feature outside the Willows Planning Area are Coastal Ranges to the east in Glenn County. The Coastal Ranges are a prominent landmark dominating the skyline. Willows' image is of an urban community located at the flat plain between the foothills of the Coastal Range to the West and the Sutter Buttes to the East. Extensive agricultural lands surround the city and provide visual relief and make expansive view of surrounding areas possible.

However, as noted in greater detail in the Project Description (Chapter 2.0), implementation of the proposed General Plan could lead to new and expanded urban and suburban development throughout the City. This new development may result in changes to the skyline throughout the Planning Area, which may obstruct or interfere with views of visual features surrounding the Planning Area. Furthermore, buildout under the proposed General Plan and implementation of the General Plan Land Use Map has the potential to result in new and expanded development along highway corridors with high scenic values, even though these corridors are not officially designated as State Scenic Highways.

While growth is anticipated to occur in the Willows Planning Area and within the other cities within Glenn County, the majority of growth is anticipated to occur in and around existing urban development. Development of land uses and associated infrastructure is planned to occur in the future to accommodate growth envisioned in the general plans that are effective within the cumulative analysis area, including the lands surrounding the city within Glenn County.

Regional growth has and will continue to result in a cumulative aesthetic effect by converting undeveloped land into developed and occupied areas and increasing overall levels of nighttime lighting. Cumulative development entails grading/landform alteration, the development of structures, and the installation of roadways and other infrastructure that has altered and will continue to permanently alter the region's existing visual character. This is considered a potentially significant cumulative impact. Subsequent projects implemented under the proposed General Plan would be required to be consistent with the policies and actions of the proposed General Plan and adopted regulations pertaining to aesthetics and lighting in Willows. With implementation of adopted policies and regulations provided in Section 3.1 (Aesthetics and Visual Resources), the proposed General Plan would not considerably contribute to permanent changes in visual character, such as obstruction of scenic views, conversion of existing visual character, and increased lighting. The policies and actions included within the General Plan would fully reduce the cumulative effect of the General Plan on visual character, to mitigate the proposed project's contribution to a less-

than-significant level. Therefore, the proposed General Plan's incremental contribution to this cumulative impact would be **less than cumulatively considerable**.

AGRICULTURAL AND FOREST RESOURCES

Impact 4.2: Cumulative impact to agricultural lands and resources (Cumulatively Considerable and Significant and Unavoidable)

There are no forest lands or timber lands located within the Willows Planning Area. As described in Chapter 3.2, there are Important Farmlands located within the city and SOI, including approximately 1,788.11 acres of Prime Farmland, 759.29 acres of Statewide Important Farmland and 551.05 acres of locally important farmland.

The General Plan has taken a proactive approach to developing policies and actions that provide protection and preservation of agricultural lands are identified under Impact 3.2-1 and 3.2-2. However, there are currently undeveloped parcels within the City limits and SOI that are classified as Prime Farmlands or Important Farmlands, some of which are actively farmed. While not all these farmlands are currently designated for agricultural uses, they are still considered to be agricultural resources.

As described in greater detail under Impact 3.2-1, there is no feasible mitigation available to reduce this impact to a less than significant level. Other conversions of farmland within the County over the buildout period is also likely to occur. Furthermore, there are lands within the Willows Planning Area that are currently under a Williamson Act contract. Policies and actions identified in Chapter 3.2 would reduce this impact, and other General Plans in Glenn County have also mitigated potential impacts to agricultural resources. Nevertheless, this is considered a **cumulatively considerable** and significant and unavoidable impact.

AIR QUALITY

Impact 4.3: Cumulative impact on the region's air quality (Cumulatively Considerable and Significant and Unavoidable)

With respect to local air quality emissions, toxic air contaminant emissions, and health impacts, future development under the General Plan would be required to comply with CARB, Title 24 energy efficiency standards, and the proposed General Plan policies and actions.

As described in Chapter 3.3, implementation of the proposed Project would result in an approximately increase in citywide VMT. Additionally, as described previously in Chapter 3.3, Glenn County has a State designation of Nonattainment for O₃, PM₁₀, and PM_{2.5} and is either Unclassified or Attainment for all other criteria pollutants. The County has a national designation of Nonattainment for O₃ and PM 2.5. The County is designated either attainment or unclassified for the remaining national standards. The Glenn County APCD does not provide criteria pollutant thresholds for General Plans (such as the proposed Project). As such, there is no programmatic threshold of significance established for criteria pollutants for which to compare the proposed General Plan.

Additionally as described in Chapter 3.14 (Transportation and Circulation) of this DEIR, the proposed General Plan would result in increased per capita VMT and would also result in an increase in total VMT in comparison to the existing condition. The policies and actions included throughout the proposed General Plan cover the full breadth of air quality issues and promote air quality and vehicle trip reductions throughout the city. However, even with implementation of the General Plan policies and actions that would reduce criteria pollutant emissions, since the proposed General Plan would new development that would increase the overall, and per capita VMT, this impact is considered **cumulatively considerable** and significant and unavoidable.

BIOLOGICAL RESOURCES

Impact 4.4: Cumulative loss of biological resources, including habitats and special status species (Less than Cumulatively Considerable)

Cumulative development anticipated throughout the greater Glenn County region will result in impacts to biological resources, including the permanent loss of habitat for special status species, corridor fragmentation, direct and indirect impacts to special status species, and reduction and degradation of sensitive habitat. Biological resources are a limited resource and the cumulative loss is considered significant.

Subsequent projects implemented under the proposed General Plan would be required to be consistent with the policies and actions of the proposed General Plan. The implementation of an individual project would require a detailed and site-specific review of the site to determine the presence or absence of movement corridors, special-status species, and sensitive habitat on a given project site. If movement corridors, special-status species, or sensitive habitat are present and disturbance is required, Federal and State laws require measures to reduce, avoid, or compensate for impacts to these resources. The requirements of these Federal and State laws are implemented through the permit process. However, as provided under Chapter 3.4 (Biological Resources), with implementation of the policies and actions included within the General Plan, implementation of the General Plan would not generate a significant impact on biological resources. Therefore, the proposed General Plan's incremental contribution to this cumulative impact would be **less than cumulatively considerable**.

CULTURAL AND TRIBAL RESOURCES

Impact 4.5: Cumulative impacts on known and undiscovered cultural resources (Less than Cumulatively Considerable)

Construction of the individual development projects allowed under the land use designations of the proposed General Plan may result in the discovery and removal of cultural resources, including archaeological, historical, and Native American resources and human remains. The proposed General Plan policies and actions, as well as State and Federal regulations, will reduce the risk to resources in the region. As discussed in Chapter 3.5 (Cultural and Tribal Cultural Resources), each project would require specific surveys for potential resources and the evaluation of any resources discovered during construction activities. Other policies and actions designed to reduce impacts to cultural and tribal cultural resources within the Planning Area and the region as a whole are also

provided in Chapter 3.5 (Cultural and Tribal Cultural Resources). Adherence to these policies, actions, and regulations will avoid and/or minimize a cumulative loss of these important resources if they are found during project-specific surveys or construction. Therefore, the proposed General Plan's incremental contribution to cumulative cultural resource impacts would be **less than cumulatively considerable**.

GEOLOGY AND SOILS

Impact 4.6: Cumulative impacts related to geology and soils (Less than Cumulatively Considerable)

Construction of the individual development projects allowed under the land use designations of the proposed General Plan may result in risks associated with geology and soils. For example, there is an ongoing possibility that a fault located anywhere in the state (or region) could rupture and cause seismic ground shaking. Additionally, grading, excavation, removal of vegetation cover, and loading activities associated with construction activities could temporarily increase runoff, erosion, and sedimentation. Other geologic risks such as liquefaction, landslide, lateral spreading, and soil expansion are also geologic risks that are present.

While some cumulative impacts will occur in the region as individual projects are constructed, the proposed General Plan policies and actions, as well as State and Federal regulations, will reduce the risk to people in the region. Considering the protection granted by local, State, and Federal agencies and their requirements for seismic design, as discussed in Chapter 3.6 (Geology and Soils), the overall cumulative impact would not be significant. As a result, the proposed General Plan's incremental contribution to cumulative geologic and soil impacts would be **less than cumulatively considerable**.

GREENHOUSE GASES, CLIMATE CHANGE, AND ENERGY

Impact 4.7: Cumulative impacts related to greenhouse gases, climate change, and energy (Considerable Contribution and Significant and Unavoidable)

Implementation of the General Plan would not directly result in the creation of GHG emissions. However, subsequent development allowed under the General Plan would result in new projects that would increase GHG emissions in the Planning Area.

There are a variety of ways in which a general plan could contribute to climate change and result in the generation of GHGs. Sprawling land use patterns that place residences far from employment and retail centers can result in increased vehicle miles traveled (VMT), which increase GHG generation. The conversion of forest lands and open space areas into urbanized uses removes vegetation and trees that have positive carbon sequestration value. Imbalances between local jobs and housing can result in increased commute times and increased VMT associated with longer travel distances between home and work.

Cumulative impacts are the collective impacts of one or more past, present, and future projects that, when combined, result in adverse changes to the environment. GHG emissions are cumulative by nature, given that they spread throughout the atmosphere on a global scale. In determining the

significance of a project's contribution to anticipated adverse future conditions, a lead agency should generally undertake a two-step analysis. The first question is whether the combined effects from both the proposed project and other projects would be cumulatively significant. If the agency answers this inquiry in the affirmative, the second question is whether "the project's incremental effects are cumulatively considerable" and thus significant in and of themselves. The cumulative project list for this issue (climate change) comprises anthropogenic (i.e., human-made) GHG emissions sources across the globe and no project alone would reasonably be expected to contribute to a noticeable incremental change to the global climate. However, legislation and executive orders on the subject of climate change in California have established a statewide context and process for developing an enforceable statewide cap on GHG emissions. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that lead agencies consider evaluating the cumulative impacts of GHGs. Small contributions to this cumulative impact (from which significant effects are occurring and are expected to worsen over time) may be potentially considerable and, therefore, significant.

As future development projects are received and reviewed by the City in subsequent years, those projects will be reviewed for consistency with the General Plan and all relevant State-level programs and requirements. All future projects must implement the most current version of the Title 24 energy efficiency requirements, as required by State law. Consistency with the General Plan and other mandatory State-level programs would ensure that future project-level contributions to global climate change would be less than significant. Moreover, as identified in Section 3.7 (Greenhouse Gases, Climate Change, and Energy), buildout of the General Plan would not be expected to cause an inefficient, wasteful, or unnecessary use of energy resources nor conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

In general, expanded and new energy infrastructure will be needed to serve growth contemplated in the General Plan. The environmental effect of providing the energy and gas services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan does not propose or authorize development nor does it designate specific sites for new or expanded utilities facilities and infrastructure. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be subject to CEQA review as appropriate.

Nevertheless, there is no guarantee that the General Plan alone would be sufficient to limit GHGs to the extent required by AB 32 and SB 375, and other federal and state regulations. Therefore, General Plan implementation is considered to have the potential to generate GHG emissions that could have a significant impact on the environment and/or conflict with an applicable plan, policy, or regulation

adopted for the purpose of reducing the emissions of greenhouse gases. This impact is considered a **cumulatively considerable** and significant and unavoidable impact.

HAZARDS AND HAZARDOUS MATERIALS

Impact 4.8: Cumulative impacts related to hazardous materials and human health risks (Less than Cumulatively Considerable)

As shown in Figure 3.8-1, the City of Willows and general vicinity are not categorized as “Very High” FHSZ by CalFire. State Responsibility Areas are not found in the City limits. There are no Federal Responsibility Areas within the Willows Planning Area. The proposed General Plan includes requirements for adequate water supply and water flow availability, ensuring adequate emergency access, adequate fire protection services, fire safe design site standards, and ensuring public awareness regarding fire safety. All future projects allowed under the General Plan and future projects within the cumulative analysis area would be required to comply with the provisions of Federal, State, and local requirements related to wildland fire hazards, including State fire safety regulations associated with wildland-urban interfaces, fire-safe building standards, and defensible space requirements.

Construction of the individual development projects allowed under the land use designations of the proposed General Plan may involve the transportation, use, and/or disposal of hazardous materials, which may involve the use of equipment that contains hazardous materials (e.g., solvents and fuels or diesel-fueled equipment), or the transportation of excavated soil and/or groundwater containing contaminants from areas that are identified as being contaminated. Furthermore, because of the regional nature of the General Plan, some future land uses will inevitably transport or use hazardous materials within ¼ mile of a school, or other sensitive receptors such as hospitals and residences.

New development would inevitably increase the use of some hazardous materials within the region, resulting in potential health and safety effects related to hazardous materials use. Any use of hazardous materials must be managed in accordance with federal, State, and local (including Sacramento County) regulations to minimize any risk.

Hazardous materials incidents, if any, are typically site-specific and involve accidental spills or inadvertent releases. Associated health and safety risks generally are limited to those individuals using the materials or to persons in the immediate vicinity of the materials. Hazard-related impacts tend to be site-specific and project-specific. While some cumulative impacts, such as those associated with increases in the use of hazardous materials in the City associated with additional development, will occur in the region as individual projects are constructed, the proposed General Plan policies and actions, as well as State and Federal regulations, will reduce the project’s contribution to risks to people in the region. Considering the protection granted by local, State, and Federal agencies and their requirements for the use of hazardous materials in the region, as discussed in Chapter 3.8 (Hazards and Hazardous Materials), the overall cumulative impact for hazard impacts would not be significant. Therefore, this impact is considered **less than cumulatively considerable**.

HYDROLOGY AND WATER QUALITY

Impact 4.9: Cumulative impacts related to hydrology and water quality. (Less than Cumulatively Considerable)

Construction of the individual development projects allowed under the land use designations of the proposed General Plan has the potential to result in construction-related water quality impacts, impacts to groundwater recharge, and cause flooding, erosion, or siltation from the alteration of drainage patterns.

While some cumulative impacts will occur in the region as individual projects are constructed, the proposed General Plan policies and actions, as well as State and Federal regulations, will substantially reduce the impacts. Considering the protection granted by local, State, and Federal agencies and their permit and monitoring requirements, as discussed in Chapter 3.9 (Hydrology and Water Quality), and with implementation of the policies and actions included within the General Plan, the overall cumulative impact would not be significant. As a result, the General Plan's incremental contribution to cumulative hydrology impacts would be **less than cumulatively considerable**.

LAND USE, POPULATION, AND HOUSING

Impact 4.10: Cumulative impacts related to local land use, population, and housing (Less than Cumulatively Considerable)

Cumulative land use and planning impacts, such as the potential for conflicts with adjacent land uses and consistency with adopted plans and regulations, are typically site and project-specific. It may be determined in the project-specific design phase of a development project that an individual project may require removal of homes and result in the displacement of people and housing; however, these effects are not cumulatively considerable because there is adequate replacement housing available under the proposed General Plan. Additionally, any removal of homes would require adequate compensation to the homeowner in accordance with Federal and State laws.

The land uses allowed under the proposed General Plan provide opportunities for cohesive new growth at in-fill locations within existing urbanized areas, as well as new growth within the Planning Area in undeveloped areas designated for urban development, but would not create physical division within existing communities. New development and redevelopment projects would be designed to complement the character of existing neighborhoods and provide connectivity between existing development and new development within the cumulative analysis area. The proposed General Plan does not include any new roadways, infrastructure, or other features that would divide existing communities. Moreover, with implementation of General Plan policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds. Lastly, General Plan implementation would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. Therefore, the

proposed General Plan's incremental contribution to cumulative land use and population impacts would be **less than cumulatively considerable**.

MINERAL RESOURCES

Impact 4.11: Cumulative impacts related to mineral resources (Less than Cumulatively Considerable)

The primary mineral resources in Glenn County are sand, gravel, and natural gas. In 1997, the California Geological Survey assessed Glenn County mineral resources, with a focus on aggregate resources. Within Glenn County, 9 ARAs, including 41 subdivisions were identified as containing significant resources of concrete-grade aggregate. These areas contain an estimated minimum of 357 million tons of concrete-grade aggregate resources and a maximum of 1,031 million tons. Fourteen present production sites have an estimated 61 million tons of concrete-grade aggregate reserves, including both sand and gravel.

New urban uses available for development are within the City of city limits and SOI and would not be developed within an identified significant mineral resource area. There are no other known mineral deposits or resources extraction areas within the City that are of significant value to the region or the state.

As noted above, implementation of the proposed project would not result in loss of a mineral resource. As a result, the General Plan's incremental contribution to cumulative mineral resource impacts would be **less than cumulatively considerable**.

NOISE

Impact 4.12: Cumulative impacts related to noise (Less than Cumulatively Considerable)

Chapter 3.12 (Noise) Table 3.12-11 shows the future noise levels and the increase in noise levels associated with traffic on the local roadway network under a 20-year circulation system for the proposed General Plan, versus existing conditions.

Buildout of the General Plan may contribute to the City's transportation noises. As indicated by Table 3.12-11, the related traffic noise level increases with a circulation system buildout of the proposed 2040 General Plan are predicted to increase between 0.1 to 0.4 dB versus the existing (2019) conditions.

General Plan Policies N-1.1 through N-1.8, and Action N-1a, identified below, are intended to minimize exposure to excessive noise, including noise associated with traffic. Specifically, Policies N-1.1 through N-1.8 support noise-compatible land uses in the vicinity of traffic noise sources and require that new development and infrastructure projects be reviewed for consistency with the noise standards established in Tables N-1 and N-2. The proposed General Plan standards required under Policy N-1.3, for exposure to traffic noise meet or exceed the noise level standards of the adopted General Plan.

As described in Chapter 3.12 the noise increases associated with the proposed General Plan comply with the applicable tests of significance. Therefore, the proposed General Plan would have a **less than cumulatively considerable** contribution relative to the cumulative noise environment in the City.

PUBLIC SERVICES AND RECREATION

Impact 4.13: Cumulative impacts to public services and recreation (Less than Cumulatively Considerable)

Development accommodated under the General Plan would result in additional residents and businesses in the City, including new residential, industrial, office, and commercial uses. As described in Chapter 2.0 (Project Description), buildout of the General Plan could yield a total of up to 3,421 housing units, a population of 8,689 people, 2,157,625 square feet of non-residential building square footage, and 3,501 jobs within the Planning Area at buildout. As shown in Table 2.0-2, this represents development growth over existing conditions of up to 963 new housing units, 2,446 people, and 1,310 jobs.

Development and growth facilitated by the General Plan would result in increased demand for public services, including fire protection, law enforcement, schools, parks, libraries, and other public and governmental services. The General Plan includes policies and actions to ensure that public services are provided at acceptable levels and to ensure that development and growth does not outpace the provision of public services.

Cumulative growth that would occur within Glenn County and other areas within Glenn County over the life of the proposed General Plan will result in increased demand for public services, including fire protection, law enforcement, schools, parks, libraries, and other public and governmental services. As the demand for public services and recreation increases, there will likely be a need to address acceptable service ratios, response times, and other performance standards. New or expanded service structures (e.g., offices, maintenance and administrative buildings, schools, parks, fire facilities, libraries, etc.) will be needed to provide for adequate staffing, equipment, and appropriate facilities to serve growth within the cumulative analysis area.

New facilities will be needed to serve growth contemplated in the General Plan. The environmental effect of providing the public services is associated with the physical impacts of providing new and expanded facilities. The specific impacts of providing new and expanded facilities cannot be determined at this time, as the General Plan does not propose or authorize development nor does it designate specific sites for new or expanded public facilities. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the governmental facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan. These impacts are described in the relevant chapters (Chapters 3.1 through 3.16, and 4.0) of this Draft EIR. Any future development under the General Plan would be required to comply with regulations, policies, and standards included in the General Plan, and would be subject to CEQA review as appropriate.

The General Plan includes a range of policies and actions that would ensure that public services are provided in a timely fashion, are adequately funded, are coordinated between the City and appropriate service agency, and that new development funds its fair share of services. The General Plan includes policies to ensure that services keep pace with new development and that school, library, and governmental services are adequately planned and provided. Payment of applicable impact fees, and ongoing revenues that would come from property taxes, sales taxes, and other revenues generated by the future projects, would ensure that the City maintains acceptable service ratios. The proposed General Plan's incremental contribution to cumulative public services and recreation impacts would be **less than cumulatively considerable**.

TRANSPORTATION AND CIRCULATION

Impact 4.14: Cumulative impacts on the transportation network (Cumulatively Considerable and Significant and Unavoidable)

As described in Chapter 3.14 the Proposed General Plan would result in a similar or increased VMT per capita when compared to the existing (baseline) condition. This can be concluded based on the general plan land use designations for new job centers, such as industrial facilities and highway commercial being built on the periphery of town to the west, north, and south. The newly designated growth areas for multi-family residential are similarly far from the central city, though close to several job centers. As growth occurs on the periphery of the city, total VMT will increase and vehicle trip lengths may lengthen causing higher VMT per capita levels than that of existing development.

Furthermore, while the planned bike facilities and potential future transit improvements could improve safety and mobility, they are unlikely to decrease VMT given the general layout of Willows. Residents of Willows in the future will likely engage in similar travel patterns to existing residents based on planned land use, roadways, and alternative modes of transportation in the City, resulting in the absolute VMT of the City and increasing and the VMT per capita in Willows remaining similar to baseline in the planning horizon.

While the proposed general plan land use pattern is likely to produce similar VMT per capita levels as under existing conditions, the proposed General Plan includes policies designed to reduce vehicle travel and VMT as detailed in Chapter 3.14.

While policies and actions may result in less-than-significant VMT impacts when considered at an individual project level, they cannot be guaranteed and are not possible to fully quantify or mitigate at a citywide level as part of a programmatic General Plan. As a result, this is considered a **cumulatively considerable and significant and unavoidable** impact.

UTILITIES

Impact 4.15: Cumulative impacts related to utilities (Less than Cumulatively Considerable)

Water: Table 3.14-3 and Table 3.14-4 summarize annual projections of demands and supplies to meet those demands through 2045, as documented by in California Water Service 2020 Urban

4.0 OTHER CEQA-REQUIRED TOPICS

Water Management Plan. The proposed General Plan includes a range of policies and actions designed to ensure an adequate water supply for development and to minimize the potential adverse effects of increased water use. Given that projected water demands associated with General Plan buildout would not exceed the projected available water (including after taking into account future development within Glenn County, neighboring cities, and the broader region), and that the proposed General Plan includes a comprehensive set of goals, policies and actions to ensure an adequate and reliable source of clean potable water, impacts associated with water supplies are less than significant.

Additionally, future development in the Planning Area would be required to connect to existing water distribution infrastructure in the vicinity of each site, pay the applicable water system connection fees, and pay the applicable water usage rates. Future projects may be required to implement site specific and limited off-site improvements to the water distribution system in order to connect new project sites to the City's existing water infrastructure network. The specific impacts of providing new and expanded water distribution infrastructure cannot be determined at this time, as the General Plan does not propose any specific development projects or include details on any future development projects. However, any future improvements to the existing water distribution infrastructure would be primarily provided on sites with land use designations that allow for urbanized land uses, and the environmental impacts of constructing and operating the new water distribution infrastructure would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the proposed General Plan.

This Draft EIR addresses the potential impacts of development that may occur under the proposed General Plan, including residential, commercial, professional office, business park, light industrial, public facilities, and a range of other uses.

As development projects are proposed within the city each project will be reviewed for a variety of service requirements, conformance with local and State requirements and water availability. SB 610 and SB 221, require review of supplies and verify their availability before approving developments. Additionally, General Plan Policy LU 6-3 requires all development projects to mitigate their infrastructure service impacts or demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

The City is expected to have adequate water supply to serve the buildout GPU land uses. Calwater anticipates that the water demand in 2045 would be 1,881 AFY and that the district has the capacity to serve. It is estimated that the District's service area population was 7,183 in 2020, with a 2045 Buildout assumption population of 9,117 which is within the maximum growth identified in Chapter 2.0 (Project Description).

Future development in the Planning Area would be required to connect to existing water distribution infrastructure in the vicinity of each site, pay the applicable water system connection fees, and pay the applicable water usage rates. Future projects may be required to implement site specific and limited off-site improvements to the water distribution system in order to connect new project sites

to the existing water infrastructure network. The specific impacts of providing new and expanded waster distribution infrastructure cannot be determined at this time, as the General Plan does not propose or authorize any specific development projects or include details on any future development projects. However, any future improvements to the existing water distribution infrastructure would be primarily provided on sites with land use designations that allow for urbanized land uses, and the environmental impacts of constructing and operating the new water distribution infrastructure would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the proposed General Plan.

The city has ample water supply to account for buildout of the proposed General Plan, and the City will require all development projects to demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired. As such, this is considered **less than cumulatively considerable**.

Wastewater: The City of Willows operates and maintains the sewer system consisting of gravity sewers and pumping stations to collect wastewater from residential and commercial customers. The collected wastewater is discharged to trunk sewers and interceptors owned and operated by the City of Willows and conveyed to the Willows Wastewater Treatment Plant (WWTP) for treatment.

Currently, all wastewater collected from the City is treated at the WWTP. There are approximately 2,255 residential connections and 222 commercial/industrial connections. The City of Willows completed a major upgrade to the wastewater treatment plant (WWTP) by increasing the treatment capability from secondary to tertiary quality effluent with a rated capacity of 1.2 mgd (million gallons per day). The treatment system includes influent screening, extended aeration (biolac system), activated sludge with two secondary clarifiers, nine continuous backwash sand filters, disinfection with sodium hypochlorite, dechlorination using sodium bisulfite injection, equalization and emergency storage ponds, and sludge storage lagoons. The WWTP currently has a daily dry weather average flow of approximately 0.650 million gallons per day (650,000 gallons per day) from all customers in Willows WWTP service area.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

As Willows continues to develop in the future, there will be an increased need for water and wastewater services, including a reliable source of recycled water. These needs have been addressed in the three utility districts' master plans and will require that the districts, in coordination with the City, continue to implement phased improvements to some pump stations, sewer mains, and the various wastewater treatment plants when triggered by growth.

4.0 OTHER CEQA-REQUIRED TOPICS

While full buildout of the development contemplated in the proposed General Plan would increase the existing treatment demand at the districts' treatment plants, the proposed General Plan includes a range of policies designed to ensure an adequate wastewater treatment capacity for development. Specifically, General Plan Policy LU 6-3 requires all development projects to mitigate their infrastructure service impacts or demonstrate that the City's infrastructure, public services, and utilities can accommodate the increased demand for services, and that service levels for existing users will not be degraded or impaired.

Periodic review and update of the Sewer Master Plans will be required and as growth continues to occur within the Planning Area. It may be necessary to identify future necessary system upgrades and capacity enhancements to meet growth, prior to the approval of new development. Given that projected wastewater generation volumes associated with General Plan buildout are not expected to exceed the projected wastewater treatment volumes, the proposed General Plan's incremental contribution to cumulative wastewater impacts would be **less than cumulatively considerable**.

Stormwater: Development under the proposed General Plan would result in increased areas of impervious surfaces throughout the Planning Area, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure. The infrastructure and facilities necessary to serve new growth would involve development of some facilities on-site within new development projects, some facilities off-site on appropriately designated land, and may also involve improvements to existing facilities and disturbance of existing rights-of-way.

Stormwater drainage and conveyance facilities would be evaluated at the project-level in association with subsequent development projects. However, the facilities would be primarily provided on sites with land use designations that allow such uses and the environmental impacts of constructing and operating the facilities would likely be similar to those associated with new development, redevelopment, and infrastructure projects under the General Plan.

As future development and infrastructure projects are considered by the City, each project will be evaluated for conformance with the General Plan, Municipal Code, and other applicable regulations. Subsequent development and infrastructure projects would also be analyzed for potential environmental impacts, consistent with the requirements of CEQA.

With the policies and actions listed in Section 3.14 (Utilities) would ensure that there is adequate stormwater drainage and flood control infrastructure to serve future development under the General Plan, and would ensure that future drainage and flood control infrastructure projects do not result in adverse environmental impacts. The proposed General Plan's incremental contribution to cumulative wastewater impacts would be **less than cumulatively considerable**.

Solid Waste: As described in Chapter 3.15, Glenn County disposed of 23,232 tons of solid waste in 2018 achieving a disposal rate of 4.4 PPD per resident. Assuming these disposal rates remain constant throughout the life of the General Plan, the new growth under General Plan buildout would result in an increase of approximately 7,700 pounds per day of solid waste, which equals 3.85 tons per day or 1,405.25 tons of solid waste per year.

The City's projected increase in solid waste generation associated with future buildout of the proposed General Plan is within the permitted capacity of the new Glenn County's solid waste facilities. Future projects within the Planning Area would be required to comply with applicable state and local requirements including those pertaining to solid waste, construction waste diversion, and recycling. While there is adequate permitted landfill capacity to accommodate future growth, the proposed General Plan includes actions to further reduce the project's impact on solid waste services. The General Plan would not exceed the permitted capacity of the landfill serving the City, and the General Plan complies with regulations related to solid waste. The proposed General Plan's incremental contribution to cumulative solid waste impacts would be **less than cumulatively considerable**.

WILDFIRE

Impact 4.16: Cumulative impact related to wildfire (Less than Cumulatively Considerable)

The Planning Area is not located in or near any State Responsibility Areas and there are no lands classified as very high fire hazard severity zones (VHFHSZ) within or near the Planning Area. Therefore, the General Plan would have **no impact** related to wildfire risks associated with lands in or near State Responsibility Areas or lands classified as very high fire hazard severity zones. Therefore, the proposed General Plan's incremental contribution to cumulative wildfire impacts would be **less than cumulatively considerable**.

4.2 GROWTH-INDUCING EFFECTS

INTRODUCTION

Section 15126.2(e) of the CEQA Guidelines requires that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the CEQA Guidelines as:

The way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth...It is not assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.

Based on the CEQA Guidelines, growth inducement is any growth that exceeds planned growth of an area and results in new development that would not have taken place without implementation of the project. A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand (*Napa Citizens for Honest Government v. Napa County Board of Supervisors*). Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and

development, such as removing a constraint on a required public service. A project providing an increased water supply in an area where water service historically limited growth could be considered growth-inducing.

The CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

The General Plan is a long-term plan intended to accommodate projected population, housing, and employment growth, including the appropriate balance among these factors with the necessary public services and infrastructure. The proposed General Plan would serve as a comprehensive, long-term plan for the physical development of Willows. Projected growth is described in Section 3.10 (Land Use and Population), and the environmental consequences related to the potential growth are fully assessed in each topical section. By definition, the proposed Willows General Plan is intended to provide for and address future growth in the City.

Because the proposed General Plan provides a framework for development through its Land Use Map, land use designations, goals, policies, and actions, it would directly induce population and employment growth in the Willows Planning Area by designating land for development that is more intense, in some instances, than current designations allow. The analysis of the indirect growth-inducing impacts for the proposed General Plan focuses on the following factors: inducement of unanticipated population growth; encouragement of economic growth that leads to jobs and housing growth; elimination of obstacles to population growth; and resulting service, facility, or infrastructure demands in excess of existing and planned growth.

The proposed General Plan accommodates future growth in Willows, including new businesses, expansion of existing businesses, and new residential uses. Infrastructure and services would need to accommodate future growth. The General Plan is oriented toward the economic growth of the City, with emphasis given to encouraging development of a broader array of businesses, increasing local employment opportunities, and providing residential development as necessary to serve economic growth. The cumulative development scenario addressed in this Draft EIR is the maximum projected development that could occur within the existing city limits and the Planning Area, if every parcel in the city and the Planning Area developed at or near the higher end of densities and intensities allowed under the proposed General Plan.

As shown in Table 2.0-3, buildout of the General Plan could yield up to 963 new housing units, and 786,233 square feet of new non-residential building square footage within the Planning Area. Depending on growth rates, the actual growth during the life of the General Plan could be lower or higher, but would not exceed the theoretical maximum buildout described in Chapter 2.0.

Given the historical and current population, housing, and employment trends, growth in the City, as well as the entire state, is inevitable. The primary factors that account for population growth are natural increase and net migration. The average annual birth rate for California is expected to be 20 births per 1,000 population. Additionally, California is expected to attract more than one third of the country's immigrants. Other factors that affect growth include the cost of housing, the location of jobs, the economy, the climate, and transportation. While these factors would likely result in growth in Willows during the planning period of the proposed General Plan, growth will continue to occur based primarily on the demand of the housing market and demand for new commercial, industrial, and other non-residential uses. As future development occurs under the proposed General Plan, new roads, infrastructure, and services would be necessary to serve the development and this infrastructure would accommodate planned growth. However, growth under the proposed General Plan would remain within the general growth levels projected statewide and would not be anticipated to exceed any applicable growth projections or limitations that have been adopted to avoid an environmental effect. The proposed General Plan is intended to accommodate the City's fair share of statewide housing needs, based on regional numbers provided by the California Department of Housing and Community Development on a regular basis (every five to eight years).

The proposed General Plan includes policies and actions that mitigate environmental impacts associated with growth, such as air quality, noise, traffic, water supply, and water quality. Additionally, this Draft EIR identifies General Plan policies and actions, where appropriate, that would serve to reduce or eliminate potentially significant impacts associated with specific environmental issues associated with growth. Chapters 3.1 through 3.16 and 4.0 provide a discussion of environmental effects associated with development allowed under the proposed General Plan.

With implementation of General Plan policies and actions intended to guide growth to appropriate areas and provide services necessary to accommodate growth, the land uses allowed under the proposed General Plan, the infrastructure anticipated to accommodate proposed land uses, and the goal and policy framework would not induce growth that would exceed adopted thresholds. Therefore, population and housing growth associated with the proposed General Plan would result a **less than significant** impact.

4.3 SIGNIFICANT IRREVERSIBLE EFFECTS

LEGAL CONSIDERATIONS

CEQA Section 15126.2(d) and Public Resources Code Sections 21100(b)(2) and 21100.1(a), requires that the EIR include a discussion of significant irreversible environmental changes which would be involved in the proposed action should it be implemented. Irreversible environmental effects are described as:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g., a highway provides access to previously remote area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Determining whether the proposed project would result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed such that there would be little possibility of restoring them. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Consumption of Nonrenewable Resources

Consumption of nonrenewable resources refers to the loss of physical features within the natural environment, including the conversion of agricultural lands, loss of access to mining reserves, and nonrenewable energy use. The Willows Planning Area has multiple nonrenewable resources, including biological resources, water resources, and energy resources.

One of the objectives of the proposed General Plan is to conserve natural resources within the Planning Area. Many of these policies and actions, aimed at preserving natural resources, are contained within the Conservation and Sustainability Element, and have been identified throughout this EIR. Additionally, the proposed General Plan directs most new development to infill areas, and areas surrounding existing neighborhoods and urbanized areas. As a result, the proposed General Plan will minimize the potential for impacts to the nonrenewable resources in the Planning Area, including biological resources, water resources, and energy resources, to the greatest extent feasible. More detailed and focused discussions of potential impacts to these nonrenewable resources are contained throughout this Draft EIR.

Nonrenewable energy resources such as electricity, natural gas, propane, gasoline, and diesel would be consumed during the construction and operation of development projects contemplated under the General Plan buildout. The proposed General Plan includes a variety of policies that seek to conserve, protect, and enhance energy resources. These policies focus on energy efficiency in the design, materials, construction, and use of buildings, the use of alternative energy systems, and alternative transportation modes. As described in Chapter 3.7 (Greenhouse Gases, Climate Change

and Energy), the proposed General Plan would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for during General Plan buildout, including during construction, operations, maintenance, and/or removal.

Irretrievable Commitments/Irreversible Physical Changes

The implementation of the General Plan would not be expected to result in environmental accidents that have the potential to cause irreversible damage to the natural or human environment through environmental accidents. While activities anticipated to occur under the General Plan would result in the limited use, transport, storage, and disposal of hazardous materials, all activities would comply with applicable state local, and federal laws related to hazardous materials transport, use, and storage, which would significantly reduce the likelihood and severity of accidents that could result in irreversible environmental damage. Implementation of the proposed General Plan would result in a commitment of land uses designated for the foreseeable future. Land use and development consistent with the General Plan would result in irretrievable commitments by introducing development onto sites that are presently undeveloped. The conversion of undeveloped lands to urban uses would result in an irretrievable loss of undeveloped land, wildlife habitat, and open space. Additionally, development will physically change the environment in terms of aesthetics, air emission, noise, traffic, open space, and natural resources. These physical changes are irreversible after development occurs.

Therefore, the proposed General Plan would result in changes in land use within the Planning Area that would commit future generations to these uses.

Impact 4.17: Irreversible effects (Significant and Unavoidable)

In summary, the proposed General Plan includes an extensive policy framework that is designed to address land use and environmental issues to the greatest extent feasible, while allowing growth and economic prosperity for the City. However, even with the policies and actions that will serve to reduce potential significant impacts, the proposed General Plan will result in significant irreversible changes. This impact is considered a **significant and unavoidable** impact under CEQA.

4.4 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. The following significant and unavoidable impacts of the General Plan are discussed in Chapter 3 and previously in this chapter (cumulative-level). Refer to those discussions for further details and analysis of the significant and unavoidable impacts identified below:

- **Impact 3.2-1:** General Plan implementation would result in the conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance (Significant and Unavoidable)
- **Impact 3.2-2:** General Plan implementation may result in conflicts with existing Williamson Act Contracts (Significant and Unavoidable)
- **Impact 3.3-1:** General Plan implementation would not conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants (Significant and Unavoidable)
- **Impact 3.7-1:** General Plan implementation has the potential to generate GHG emissions that could have a significant impact on the environment and/or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Significant and Unavoidable)
- **Impact 3.14-1:** General Plan implementation may conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) (Significant and Unavoidable).
- **Impact 4.3:** Cumulative impact on the region's air quality (Cumulatively Considerable and Significant and Unavoidable)
- **Impact 4.7:** Cumulative impacts related to greenhouse gases, climate change, and energy (Considerable Contribution and Significant and Unavoidable)
- **Impact 4.14:** Cumulative impacts on the transportation network (Cumulatively Considerable and Significant and Unavoidable)
- **Impact 4.17:** Irreversible Effects (Significant and Unavoidable)

5.1 CEQA REQUIREMENTS

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

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

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

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

5.2 ALTERNATIVES CONSIDERED IN THIS EIR

FACTORS GUIDING SELECTION OF ALTERNATIVES

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

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

5.0 ALTERNATIVES

- Develop a long-term vision for the City of Willows
- Establish greater connections between the General Plan and current planning issues
- Provide a range of high-quality housing options;
- Attract and retain businesses and industries that provide high-quality jobs;
- Maintain strong fiscal sustainability and continue to provide efficient and adequate public services;
- Address new requirements of State law; and

SIGNIFICANT AND UNAVOIDABLE IMPACTS

The proposed General Plan Update would result in the following significant and unavoidable impacts, which are described in Sections 3.1 through 3.16 and Chapter 4.0:

- **Impact 3.2-1:** General Plan implementation would result in the conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance (Significant and Unavoidable)
- **Impact 3.2-2:** General Plan implementation may result in conflicts with existing Williamson Act Contracts (Significant and Unavoidable)
- **Impact 3.3-1:** General Plan implementation would not conflict with or obstruct implementation of the applicable air quality plan, or result in a cumulatively considerable net increase of criteria pollutants (Significant and Unavoidable)
- **Impact 3.7-1:** General Plan implementation has the potential to generate GHG emissions that could have a significant impact on the environment and/or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Significant and Unavoidable)
- **Impact 3.14-1:** General Plan implementation may conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) (Significant and Unavoidable).
- **Impact 4.3:** Cumulative impact on the region's air quality (Cumulatively Considerable and Significant and Unavoidable)
- **Impact 4.7:** Cumulative impacts related to greenhouse gases, climate change, and energy (Considerable Contribution and Significant and Unavoidable)
- **Impact 4.14:** Cumulative impacts on the transportation network (Cumulatively Considerable and Significant and Unavoidable)
- **Impact 4.17:** Irreversible Effects (Significant and Unavoidable)

ALTERNATIVES TO THE GENERAL PLAN UPDATE

Three alternatives to the General Plan Update were considered based on the analysis performed to identify the environmental effects of the proposed project. Since the General Plan Update was prepared with the intent to be a self-mitigating document, project alternatives focused on amending land uses and standards to potentially address impacts. The alternatives analyzed in this EIR include the following:

- **Alternative 1: No Project Alternative.** Under Alternative 1, the City would not adopt the General Plan Update. The existing Willows General Plan would continue to be implemented and no changes to the General Plan, including the Land Use Map, Circulation Diagram, goals, policies, or actions would occur. Subsequent projects, such as amending the Municipal Code (including the zoning map) and the City's Design Guidelines, would not occur. The Existing General Plan Land Use Map is shown on Figure 5.0-1.
- **Alternative 2: Modified Project Alternative.** Under Alternative 2, the City would adopt the updated General Plan policy document, but would retain the existing land use map. This alternative would result in the same growth as the existing General Plan and Alternative 1, but would implement the updated goals, policies, and actions found in the General Plan Update. This Alternative would result in less residential and non-residential growth than the proposed Project. This alternative was developed to potentially reduce the severity of significant impacts associated with noise, as well as the potential further reduction in less than significant impacts related to aesthetics, biological resources, cultural resources, noise, public services, air quality and utilities.
- **Alternative 3: Agriculture Protection Alternative.** Alternative 3 provides for jobs-creating and residential development land uses, focused within the City Limits. Under this alternative, the proposed Project would be developed in such a way as to protect lands currently identified as prime farmland and farmland of statewide importance, by reducing the overall footprint of the developable areas and focus development on infill development. For the purposed of this analysis it is assumed that future development buildout would exclude development assumed within the SOI. This Alternative would result in the least amounts of overall developable area, but would result in slightly increased rate of development within the City Limits when compared to Alternatives 1 and 2.

A summary of the growth projections, including population growth, housing units, jobs, and the job/housing balance for the Project and each Alternative is shown in Table 5.0-1.

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TABLE 5.0-1: GROWTH PROJECTIONS BY ALTERNATIVE

ALTERNATIVE	POPULATION	DWELLING UNITS	NON-RESIDENTIAL SQUARE FEET OF DEVELOPMENT	JOBS	JOBS PER HOUSING UNIT
<i>EXISTING CONDITIONS</i>					
	6,243	2,458	1,371,392	2,191	0.89
<i>NEW GROWTH</i>					
Proposed General Plan	2,446	963	786,233	1,310	1.36
Alternative 1: Existing General Plan/No Project	970	382	726,096	1,210	3.17
Alternative 2: Modified Project Alternative	970	382	726,096	1,210	3.17
Alternative 3: Agriculture Protection Alternative	1,750	689	717,835	1,196	1.74
<i>TOTAL BUILDOUT GROWTH: EXISTING PLUS NEW GROWTH</i>					
Proposed General Plan	8,689	3,421	2,157,625	3,501	1.02
Alternative 1: Existing General Plan/No Project	7,214	2,840	2,097,488	3,401	1.20
Alternative 2: Modified Project Alternative	7,214	2,840	2,097,488	3,401	1.20
Alternative 3: Increased Density Alternative	7,993	3,147	2,089,227	3,387	1.08

SOURCE: DE NOVO PLANNING GROUP, 2022

The primary difference between the proposed General Plan and Alternative 2 is the Land Use Maps associated with each of these alternatives while the primary difference between the proposed General Plan and Alternative 3 is the assumption of an infill development focus. The goals, policies, and actions contained in the proposed General Plan would also apply and be implemented under Alternatives 2 and 3. Therefore, changes to the Land Use Map and growth focus are the only variables that may increase or decrease the severity of one or more of the significant environmental impacts identified in this Draft EIR.

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

ALTERNATIVE 1 - NO PROJECT

Under Alternative 1, the City would continue to implement the existing General Plan and no changes would be made to address updated General Plan Guidelines, or the requirements of State law. Since adoption of the existing General Plan, State legislation has been passed requiring the City to address new safety and circulation requirements in the General Plan and to further address greenhouse gas emissions. The General Plan goals, policies, and actions, as well as the Land Use Map, would not be updated to address the vision and concerns of the City's residents, property owners, decision-makers, and other stakeholders that actively participated in the visioning and goal and policy development process.

Alternative 1 would result in the continuation of existing conditions and development levels. New growth would be allowed as envisioned under the existing General Plan, with land uses required to be consistent with the existing General Plan Land Use Map. Table 5.0-2 shows the acreages of each land use designation for the existing General Plan Land Use Map.

TABLE 5.0-2: ALTERNATIVE 1 (EXISTING GENERAL PLAN LAND USE DESIGNATIONS)

<i>LAND USE</i>	<i>CITY</i>	<i>SOI</i>	<i>TOTAL</i>
Agricultural/Residential	-	84.75	84.75
Business Park	-	44.13	44.13
Commercial/Industrial Combining Use	193.45	-	193.45
Community Commercial	-	25.15	25.15
Entryway	23.55	-	23.55
General Agriculture	-	320.33	320.33
General Commercial	109.64	-	109.64
General Industrial	101.90	-	101.90
Highway and Visitor Service Commercial	-	15.54	15.54
Highway Commercial	61.89	-	61.89
Industrial	-	237.09	237.09
Intensive Agriculture	-	1682.61	1682.61
Light Industrial	157.87	-	157.87
Low Density Residential	488.51	-	488.51
Multiple Family Residential	33.15	24.34	57.50
Office and Professional	44.98	-	44.98
Open Space	42.81	-	42.81
Public Facilities	-	285.26	285.26
Public Facilities and Services	168.71	-	168.71
ROW/Canal	27.50	-	27.50
Rural Residential	-	240.75	240.75
Service Commercial	-	116.27	116.27
Single Family Residential	-	158.19	158.19
Suburban Residential	-	364.29	364.29
Grand Total	1453.95	3598.68	5052.63

SOURCE: DE NOVO PLANNING GROUP, 2021

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As shown in Table 5.0-2, Alternative 1 would provide for reduced acres of residential land uses and would not include new land uses such as mixed-uses used included in the proposed General Plan's land use map (See Chapter 2.0 Project Description).

As shown in Table 5.0-1, Alternative 1 would result in increased housing and job growth within the Willows city limits when compared to existing conditions, but less overall growth than the proposed Project.

Under Alternative 1 at full buildout, there would be an increase over existing conditions in residential growth (approximately 382 dwelling units) and jobs (approximately 1,210 jobs) within the Planning Area. Under cumulative conditions, development in Planning Area combined under Alternative 1 would result in a population of 7,214 and 3,401 jobs. Under Alternative 1, the existing General Plan policy framework would still be in effect, which would constitute a status quo approach to land use regulation in the City. The Proposed Land Use Map, along with the policy framework proposed by the General Plan Update, encourages and aims to achieve a community with a balanced land use pattern that meets the City's long-term housing, employment, and civic needs. The proposed General Plan was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection.

Alternative 1 would not include updated policies, particularly those related to additional housing opportunities, greenhouse gases, community health, and mobility for all roadway users, as required by State law. This alternative would not include various policies proposed in the General Plan update to ensure protection of environmental resources, both at a project level and under cumulative conditions, consistent with the objectives of CEQA.

Alternative 1 fails to meet several of the basic General Plan objectives, including: Establishing a greater connection between the General Plan and current planning issues; and addressing new requirements of State law.

Therefore, Alternative 1 (No Project) is rejected from further consideration as a CEQA alternative, as it fails to meet several of the Project objectives. However, for reference, the environmental effects associated with Alternative 1 are discussed and summarized in Table 5.0-3 to provide a general comparison between the adopted Willows General Plan (Alternative 1 – No Project), the proposed project, and Alternatives 2 and 3.

ALTERNATIVE 2 – MODIFIED PROJECT ALTERNATIVE

Under Alternative 2, the City would adopt the updated General Plan policy document, including the revised goals, policies, and actions; however, the City would retain the existing land use map. Alternative 2 would result in less residential and nonresidential growth than the proposed General Plan, but it would result in the same growth as Alternative 1. Land use designations are summarized in Table 5.0-2.

The goals, policies, and actions of the General Plan Update would apply to subsequent development, planning, and infrastructure projects under this alternative.

As shown previously in Table 5.0-1, Alternative 2 would result in approximately fewer housing units and fewer residents within Willows when compared to the proposed General Plan Land Use Map. Employment opportunities would also be slightly decreased under this alternative.

ALTERNATIVE 3 – AGRICULTURE PROTECTION ALTERNATIVE

Alternative 3 - Agriculture Protection Alternative provides jobs-creating and residential development land uses focused within the City Limits. Under this alternative, the proposed Project would be developed in such a way to protect lands currently identified as prime farmland and farmland of statewide importance, by reducing the overall footprint of the developable areas and focus development on infill development. For the purposed of this analysis it is assumed that future development would exclude land areas within the SOI. This Alternative would result in the least amounts of overall developable area, but would result in slightly increased rate of development within the City Limits when compared to Alternatives 1 and 2.

5.3 ENVIRONMENTAL ANALYSIS

The alternatives analysis provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR. Following the analysis of each alternative, Table 5.0-1 summarizes the comparative effects of each alternative.

Aesthetics

As described in Chapter 3.1 (Aesthetics and Visual Resources) impacts related to Aesthetics were found be less than significant. Project Alternatives 1 and 2 would result in similar development patterns when compared to the Proposed Project; however, as noted above, Alternative 3 would result in the least amount of dwelling units increased agricultural land conservation. The reduced development potential under Alternative 3 as compared to the Proposed General plan and Alternatives 1 and 2 would likely result in decreased building intensities and decreased densities in the Planning Areas SOI. Willows has prepared the proposed General Plan to include numerous policies and actions related to community design to maintain and enhance the Planning Area's appearance and function. Specifically, the policies and actions are intended to protect and preserve visual resources, including ensuring appropriate transitions between land uses to preserve the community's harmonious character within the Planning Area.

Maximum densities and building intensities under Alternative 1 and 2 would be generally the same as the Proposed Project, and aesthetic impacts would generally be the same under these alternatives. Visual impacts would be slightly reduced under Alternative 3 when compared to the Proposed General Plan. Additionally, Alternative 2 includes adoption of the updated policy document, which includes numerous policies and actions to preserve and protect visual resources. Therefore, Alternative 2 would be superior to the No Project Alternative (Alternative 1).

Agriculture and Forest Resources

As described in Impact 3.2-1 of Chapter 3.2, impacts related to Agricultural and Forest Resources were found to be significant. There are agricultural lands identified by the CA Department of Conservation's Farmland Mapping and Monitoring Program within the Willows Planning Area. Furthermore, there are lands within the Willows Planning Area that are currently under a Williamson Act contract.

There are no forest lands or timber lands located within the Willows Planning Area.

This impact would remain significant under all of the Alternatives. All Project Alternatives would result in general plan land use designations that would result in development patterns that impact agricultural resources. However, the reduced footprint of urban development and its impact to agricultural resources under Alternative 3 would be reduced when compared to all other alternatives. The impact level under all other alternative scenarios would remain roughly similar, however the additional areas designated for development under the Proposed General Plan would be greater than under the existing General Plan's Land Use Map. Therefore Alternatives 1 and 2 would have slightly reduced impacts to agricultural resources when compared to the proposed Project.

Air Quality

As described in Chapter 3.3 (Air Quality) Impact 3.3-1, the proposed General Plan implementation would result in significant impacts to air quality.

As further described in Chapter 3.3, policies and actions included in the proposed General Plan would further the fundamental goals of reducing emissions of criteria pollutants associated with reducing building energy usage, and would increase opportunities for alternative transit in Willows and the surrounding areas. The General Plan policies and actions that would work to further criteria pollutant emissions reductions, including reviewing projects for conformance with applicable air quality plans and regulations, reducing energy demands, and implementing methods to reduce vehicle miles traveled. However, even with implementation of the General Plan policies and actions that would reduce criteria pollutant emissions, the proposed General Plan would increase VMT.

Under Alternative 2, the Planning Area would be developed with the existing General Plan Land Use Map, but would be required to adhere to the same policy guidance and local, state, and regional air quality measures as the Proposed General Plan. Buildout of the Existing General Plan

and Alternative 2 would result in approximately fewer housing units, fewer residents, and fewer jobs within Willows when compared to the proposed General Plan Land Use Map. Additionally Alternative 3 would result in the least overall development footprint and would result in the most infill development further reducing overall VMT. A decrease in total residential unit count, population, and jobs may also decrease the total air quality emissions and overall VMT. As such, the air quality impact is increased slightly under the Proposed General Plan when compared to all other alternatives. However, the Proposed General Plan's updated policy document, includes a range of goals and policies that would reduce air quality and toxic air contaminant emissions. As such, the air quality impacts may increase slightly under Alternative 1 and decrease slightly under Alternative 2 when compared to the proposed General Plan. Moreover, when compared to the proposed Project, Alternative 3 impacts would be reduced when compared to all other Alternatives.

Biological Resources

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

The proposed Project and Alternatives 1 and 2 would result in similar development patterns, while Alternative 3 would result in the most land conserved for agricultural uses which may provide additional habitat opportunities within the Planning Area. The proposed General Plan and Alternatives 2 and 3 would also include updated biological policies and actions aimed at protecting biological resources (as described in detail in Chapter 3.4). Therefore, impacts to biological resources under Alternative 2 would be slightly reduced when compared to the proposed General Plan and Alternative 3 would be superior to all other alternatives. Additionally, because Alternative 2 would update the biological resource policies consistent with the Proposed General Plan, impacts to biological resources would be slightly reduced when compared to the No Project Alternative, which does not include an updated policy document.

Cultural and Tribal Cultural Resources

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

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The proposed Project and Alternatives 1 and 2 would result in similar development patterns and a similar development footprint. Alternative 3 would include additional preservation of agricultural lands within the SOI.

Because Alternatives 2 and 3 would update cultural resource policies to include new policies and actions related to agency coordination, consultation, and monitoring consistent with the proposed General Plan Policy Document, impacts to cultural resources would be slightly reduced when compared to the No Project Alternative which does not include additional and updated policies related to cultural resources. Alternative 3 would result in the potential for the fewest impacts as the development footprint would be reduced. The impact under all other scenarios (the proposed General Plan, and Alternatives 2 a) would remain the same.

Greenhouse Gas Emissions and Energy

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

As further described in Chapter 3.7, even with implementation of the General Plan policies and actions that would reduce emissions, the proposed General Plan would increase VMT.

Under Alternative 2, the Planning Area would be developed with the existing General Plan Land Use Map, but would be required to adhere to the same policy guidance and local, state, and regional air quality measures as the Proposed General Plan. Buildout of the Existing General Plan and Alternative 2 would result in approximately fewer housing units, fewer residents, and fewer jobs within Willows when compared to the proposed General Plan Land Use Map. Additionally Alternative 3 would result in the least overall levels of development and would result in the most infill development. The decrease in total residential unit count, population, and jobs may decrease the total air quality emissions and overall VMT. As such, the air quality impact is increased slightly under the Proposed General Plan when compared to all other alternatives. However, the Proposed General Plan's updated policy document, includes a range of goals and policies that would reduce air quality and toxic air contaminant emissions. As such, the air quality impacts may increase slightly under Alternative 1 and decrease slightly under Alternative 2 when compared to the proposed General Plan. Moreover, when compared to the proposed Project, Alternative 3 impacts would be reduced when compared to all other Alternatives.

As stated in Chapter 3.7, the proposed General Plan includes a range of goals and policies that would reduce GHG emissions associated with future development and improvement projects. Under Alternative 2, the Planning Area would be developed with the existing General Plan Land Use Map, but would be required to adhere to the same policy guidance and local, state, and regional greenhouse gas measures as the Proposed General Plan. Buildout of Alternatives 1 and 2 would result in fewer housing units, residents, and jobs within Willows when compared to the proposed General Plan Land Use Map, while Alternative 3 would result in the least overall levels of development. The decrease in total residential unit count and population may decrease the total greenhouse gas emissions and energy use. As such, the greenhouse gas emissions impact is increased slightly under the proposed General Plan when compared to Alternatives 2 and 3.

Moreover, when compared to Alternative 1 (No Project), the Proposed General Plan, Alternative 2 and Alternative 3 all include a range of goals and policies that would reduce GHG emissions, including policies to encourage mixed-use development, complete streets and multi modal improvements that would further reduce per capita GHG impacts. Therefore, when compared to Alternative 1 (No Project), Alternatives 2 and 3 and the proposed General Plan would be slightly superior. Alternative 3 would be superior to all alternatives as this alternative places more emphasis on infill development that presents substantially more opportunities for trip internalization and increased opportunities for walking and bicycling.

Geology

As described in Chapter 3.6 (Geology), the proposed General Plan would result in less than significant impacts to Geology and Soils. All alternatives would result in similar development patterns. The proposed General Plan and Alternatives 2 and 3 would also include updated policies related to geologic hazards, including requirements for project reviews and standards for construction and building practices (as described in detail in Chapter 3.6).

All future projects within the Planning Area will be required to comply with state laws including the preparation of stormwater plans, and compliance with the provisions of the California Building Standards Code (CBSC), which requires development projects to perform geotechnical investigations in accordance with State law, engineer improvements to address potential seismic and ground failure issues, and use earthquake-resistant construction techniques to address potential earthquake loads when constructing buildings and improvements. However, impacts related to Geology and Soils would generally be similar under all alternatives, although the reduced development footprint under Alternative 3 may slightly reduce these impacts. Additionally, the updated policy document provides for additional policies and action related to geologic hazards and safety when compared to the existing General Plan, therefore the proposed General Plan and Alternatives 2 and 3 would be considered to be slightly superior to the Alternative 1.

Hazards and Hazardous Materials

As described in Chapter 3.8 (Hazards and Hazardous Materials), all impacts related to hazards and hazardous materials were found to be less than significant. The proposed General Plan and Alternative 2 would include updated policies and actions aimed at protecting the public from hazardous materials. These policies and actions in the General Plan would ensure that potential hazards are identified on a project site, that development is located in areas where potential exposure to hazards and hazardous materials can be mitigated to an acceptable level, and that business operations comply with Federal and State regulations regarding the use, transport, storage, and disposal of hazardous materials. The proposed General Plan also includes policies and actions to ensure that the City has adequate emergency response plans and measures to respond in the event of an accidental release of a hazardous substance. (as described in detail in Chapter 3.8). Additionally, under all Project Alternatives no development could take place in areas of high wildland fire risk.

All Project Alternatives would result in additional developed uses including commercial, industrial, residential, and mixed-use and public facility development. The impacts under all scenarios would remain similar, however, impacts to hazards and hazardous materials would be slightly reduced under the Proposed Project, and Alternatives 2 and 3 when compared to Alternative 3. Because Alternative 1 as this alternative does not include the adoption of the updated General Plan policy document which included additional policies and actions related to hazardous materials safety and review requirements, and emergency response.

Hydrology and Water Quality

As described in Chapter 3.9 (Hydrology and Water Quality), under all impact areas, implementation of the proposed General Plan would result in less than significant impacts related to Hydrology and Water Quality.

All of the alternatives generally would allow development to occur in a manner similar to the proposed General Plan, where flood control and water quality protection measures are well established and enforced. This variation in intensity and land use designation changes would not substantially alter impacts from or to flooding, water quality, or on groundwater supplies because existing federal, State, and local regulations would apply to guard against flood hazards, water quality contamination, or impact on groundwater supplies. Impact for each alternative, like the proposed project, would be less than significant.

Alternative 2 and Alternative 1 (No Project) would result in development of the existing General Plan Land Use Map, which results in the least number of housing units and non-residential square feet when compared to the proposed General Plan and Alternative 3. Compared to the proposed General Plan, the potential water quality impacts related to construction and operation would be similar. As described in Chapter 3.9, General Plan implementation would not result in construction, or long-term impacts to surface water quality from urban stormwater runoff. All alternatives would also be required to submit a SWPPP with BMPs to the RWQCB and comply with all storm water sewer system (MS4) requirements. It would be expected that impacts related to water quality would be similar under Alternatives 2 and Alternative 3 as compared to the Proposed General Plan. The implementation of the General Plan policies and actions which includes policies aimed to enhance stormwater quality and infiltration as well as actions to review development projects to identify potential stormwater and drainage impacts and require development to include measures to ensure off-site runoff is not increased as a beyond pre-development levels would not be updated and included under Alternative 1 as this alternative does not include an update to the General Plan Policy Document to include updated policies related to permeable surfaces onsite detention, and infiltration. Therefore, this impact under the No-Project Alternative may be slightly increased when compared to all other alternatives. Additionally, Because Alternative 3 would result in the least land disturbance and the most permeable lands Alternative 3 would be superior to all other alternatives.

Land Use Planning and Population/Housing

The proposed General Plan is a long-range land use plan. As described in Chapter 3.10 (Land Use, Population, and Housing) all impacts related to land use, population, and housing were found to be less than significant under the Proposed General Plan. As described previously, the proposed General Plan and Alternatives 2 and 3 would include adoption of the updated policy document consistent with the Proposed General Plan. Therefore, Alternatives 2 and 3 would also result in the same impact level as the proposed General Plan. Additionally, the amount and typology of allowable development under the Proposed General Plan, has been crafted to help assist Willows to meet the City's Regional Housing Needs Allocation (RHNA) and future housing needs, and comply with State law. Because the No Project Alternative retains the existing General Plan Land Use Map, and policy document it would result in less consistency with pertinent state and regional plans relative to the proposed General Plan and Alternative 3 in terms of the Plan's ability to meet housing needs. All alternatives would provide greater consistency with applicable state and regional plans than the No Project Alternative, due to the proposed Project and Alternatives 2 and 3 adopting the updated General Plan policy document.

Mineral Resources

As described in Chapter 3.11, the proposed General Plan would result in less than significant impacts relating mineral resources. All of the alternatives, like the Proposed General Plan, accommodate development generally in the same areas, and these areas are, for the most part, are either already urbanized or are planned for the same development. Given that mineral resources would not be impacted by the proposed Project, impacts associated with each of the alternatives would be similar under all alternatives and all would remain less than significant. However, It should be noted that Alternative 3 may result in slightly reduced impacts when compared to all other alternatives as this alternative results in the least amounts of overall land committed to developed uses.

Noise

As described in Chapter 3.12, and 4.0 the proposed General Plan would result in less than significant noise impacts. The proposed General Plan and Alternatives 2 and 3 include General Plan Policies intended to minimize exposure to excessive noise, including noise associated with increased traffic and stationary sources. Additional policies would ensure that new development mitigates potential noise impacts to the greatest extent feasible through incorporating the noise control treatments necessary to achieve acceptable noise levels and sets criteria for evaluating future increases in traffic noise levels.

Alternatives 2 would also result in fewer residential units, less non-residential square feet and fewer jobs within the city. These reductions in jobs and housing units would slightly reduce traffic and traffic related noise. As such, noise impacts would be slightly reduced under Alternative 2 when compared to all other alternatives.

Public Services and Recreation

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

Alternatives 2 and 3 would adopt the updated General Plan policy document, but Alternative 2 would retain the existing General Plan Land Use Map. Under Alternative 2 and the No Project Alternative, the development area and development types would remain similar, however, there would be the fewest, dwelling units, and reduced population when compared to the Proposed General Plan and Alternative 3 and thus, impacts to public services (the demand for police, fire and other public services) would be slightly reduced. Overall, Alternative 2 would have a slightly reduced impact to public services when compared to the proposed Project and Alternative 3, and a reduced impact when compared to Alternative 1 as Alternative 1 would not include adoption of the updated General Plan policy document.

Transportation

As described in Chapter 3.14 (Transportation and Circulation), the proposed General Plan would result in significant and unavoidable impacts to the circulation network.

As described in Section 3.14 (Transportation and Circulation), the average VMT overall and per capita is expected to increase under the existing and proposed General Plan. As a result, the VMT impacts associated with employment-based uses allowed by the proposed General Plan were considered significant and unavoidable.

Alternative 2 and Alternative 1 (No Project) would result in development of the existing General Plan Land Use Map; therefore, the overall VMT per capita would still be significant and unavoidable. However, under Alternative 2, the updated policy document would be adopted and future developments would be required to adhere to the same policy guidance and local, state, and regional air quality measures as the Proposed General Plan and Alternative 3. Therefore, when compared to Alternative 1, Alternative 2 would slightly reduce impacts to transportation and circulation. While the proposed General Plan would result in a slightly higher average VMT than Alternative 2 the updated policy guidance included many circulation policies and actions that may help to reduce VMT overtime and would be roughly sillier when compared to Alternative 1. The infill development land use patterns under Alternative 3 would create a more balanced mixed of infill residential and employment generating uses and would result in a reduction VMT through opportunities for trip internalization and increased opportunities for walking and bicycling due to more compact development approach as well as the updated policy document that supports VMT reduction strategies. Therefore, the transportation impacts related to VMT are slight increased under The Proposed General Plan and Alternatives 1 and 2 when compared to Alternative 3.

Utilities and Service Systems

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

New development would place increased demands on utilities. Under Alternative 2, the Planning Area would be developed with the same development patterns and uses as the existing General Plan (Alternative 1). Alternative 2 would result in the least amount of new residential and non-residential development and the smallest increase in population and jobs compared to the proposed General Plan (and Alternative 3). The quantity of infrastructure installed would be substantially reduced, under Alternative 3 as this alternatives would require a smaller development footprint, but the demand for utility services, including wastewater and solid waste services would be would be similar to that required under the Proposed General Plan.

Therefore, demand for utilities would be slightly less under Alternative 3 when compared to the proposed General Plan and Alternative 2. Additionally the reduced development anticipated under Alternatives 1 and 2 would reduce the need to expanded utility services. The updated policy document include policies and actions to support adequate service levels throughout the city (as described in Chapter 3.15). Therefore Alternative 2 would be slightly superior to the No Project Alternatives due to the updated policy guidance related to public services.

Wildfire

As described in Chapter 3.16 (Wildfire), the proposed General Plan would result in less than significant impacts relating to all Wildfire impacts. All alternatives would result in similar development patterns and a similar development footprint all of which are located outside delineated fire hazard areas. The impact under all other scenarios would remain the same.

Irreversible Effects

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

During the planning horizon, development under Alternatives 1, 2, and 3 would be reduced in comparison to the proposed General Plan. Under cumulative conditions, Alternatives 1 and 2 would result in less residential and less non-residential floor area (see Table 5.0-1). All Alternatives would use nonrenewable resources, including metals, stone, and other materials related to construction, and result in on-going demand for fossil fuels and other resources associated with energy production at levels less than than the proposed Project. The associated

irretrievable commitment of nonrenewable resources and permanent conversion of other undeveloped lands that under all alternatives would remain a significant impact. Alternative 3 may have slightly reduced impact in comparison to the proposed General Plan and all other alternatives due to the due to reduced development footprint, however the expected overall development levels are increased when compared to Alternatives 1 and 2 and as such the additional building construction, and increased in population may offset any benefits of a reduced development footprint. Alternative 1 would not include an updated policy document that included additional policies and actions related to the conservation of resources and sustainable development patterns and therefore, would be considered inferior to all other alternatives.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in the EIR. If the No Project Alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). The environmentally superior alternative is that alternative with the least adverse environmental impacts when compared to the proposed General Plan.

A comparative analysis of the proposed General Plan and each of the Project alternatives is provided in Table 5.0-3 below. The table includes a numerical scoring system, which assigns a score of 1 to 5 to each of the alternatives with respect to how each alternative compares to the proposed project in terms of the severity of the environmental topics addressed in this EIR. A score of “3” indicates that the alternative would have the same level of impact when compared to the proposed project. A score of “1” indicates that the alternative would have a better (or reduced) impact when compared to the proposed project. A Score of “2” indicates that the alternative would have a slightly better (or slightly reduced) impact when compared to the proposed project. A score of “4” indicates that the alternative would have a slightly worse (or slightly increased) impact when compared to the proposed project. A score of “5” indicates that the alternative would have a worse (or increased) impact when compared to the proposed project. The project alternative with the lowest total score is considered the environmentally superior alternative.

As shown in Table 5.0-3, Alternative 3 is the environmentally superior alternative, as it was developed and refined to reduce as many environmental effects as possible. All of the alternatives fail to reduce any significant and unavoidable impacts to a less than significant level however Alternative 3 would reduce impacts to agricultural lands and resources the greatest extent. Throughout the preparation of the General Plan Update, the City Council, Planning Commission, and community all expressed a desire and commitment to ensuring that the General Plan not only reflect the community’s values and priorities, but also serve as a self-mitigating document and avoid significant environmental impacts to the greatest extent feasible. To that end, the proposed General Plan includes the fully range of feasible mitigation and minimization policies and actions available to reduce potential impacts to the greatest extent possible.

TABLE 5.0-3: COMPARISON OF ALTERNATIVES TO THE PROPOSED PROJECT

<i>ENVIRONMENTAL ISSUE</i>	<i>PROPOSED PROJECT</i>	<i>ALTERNATIVE 1 (NO PROJECT)</i>	<i>ALTERNATIVE 2 (MODIFIED)</i>	<i>ALTERNATIVE 3 (AGRICULTURE PROTECTION)</i>
Aesthetics	3 – Same	4 – Slightly Worse	3 – Same	2 – Slightly Better
Agricultural Resources	3 – Same	2 – Slightly Better	2 – Slightly Better	1 – Better
Air Quality	3 – Same	4 – Slightly Worse	3 – Same	2 – Slightly Better
Biological Resources	3 – Same	4 – Slightly Worse	2 – Slightly Better	1 – Better
Cultural Resources	3 – Same	4 – Slightly Worse	3 – Same	2 – Slightly Better
Greenhouse Gases, Climate Change, and Energy	3 – Same	4 – Slightly Worse	3 – Same	2 – Slightly Better
Geology and Soils	3 – Same	4 – Slightly Worse	3 – Same	2 – Slightly Better
Hazards and Hazardous Materials	3 – Same	4 – Slightly Worse	3 – Same	3 – Same
Hydrology and Water Quality	3 – Same	4 – Slightly Worse	3 – Same	2 – Slightly Better
Land Use and Population	3 – Same	4 – Slightly Worse	3 – Same	3 – Same
Noise	3 – Same	3 – Same	2 – Slightly Better	3 – Same
Public Services and Recreation	3 – Same	3 – Same	2 – Slightly Better	3 – Same
Transportation and Circulation	3 – Same	4 – Slightly Worse	2 – Slightly Better	1 – Better
Utilities	3 – Same	3 – Same	2 – Slightly Better	2 – Slightly Better
Wildfire	3 – Same	3 – Same	3 – Same	3 – Same
Irreversible Effects	3 – Same	4 – Slightly Worse	3 – Same	2 – Slightly Better
SUMMARY	48	58	43	34

Overall, Alternative 3 is the environmentally superior alternative as it is the most effective in terms of overall reductions of impacts compared to the proposed General Plan and all other alternatives. As such, Alternative 3 is the environmentally superior alternative for the purposes of this EIR analysis.

SATISFACTION OF PROJECT OBJECTIVES

Alternative 1

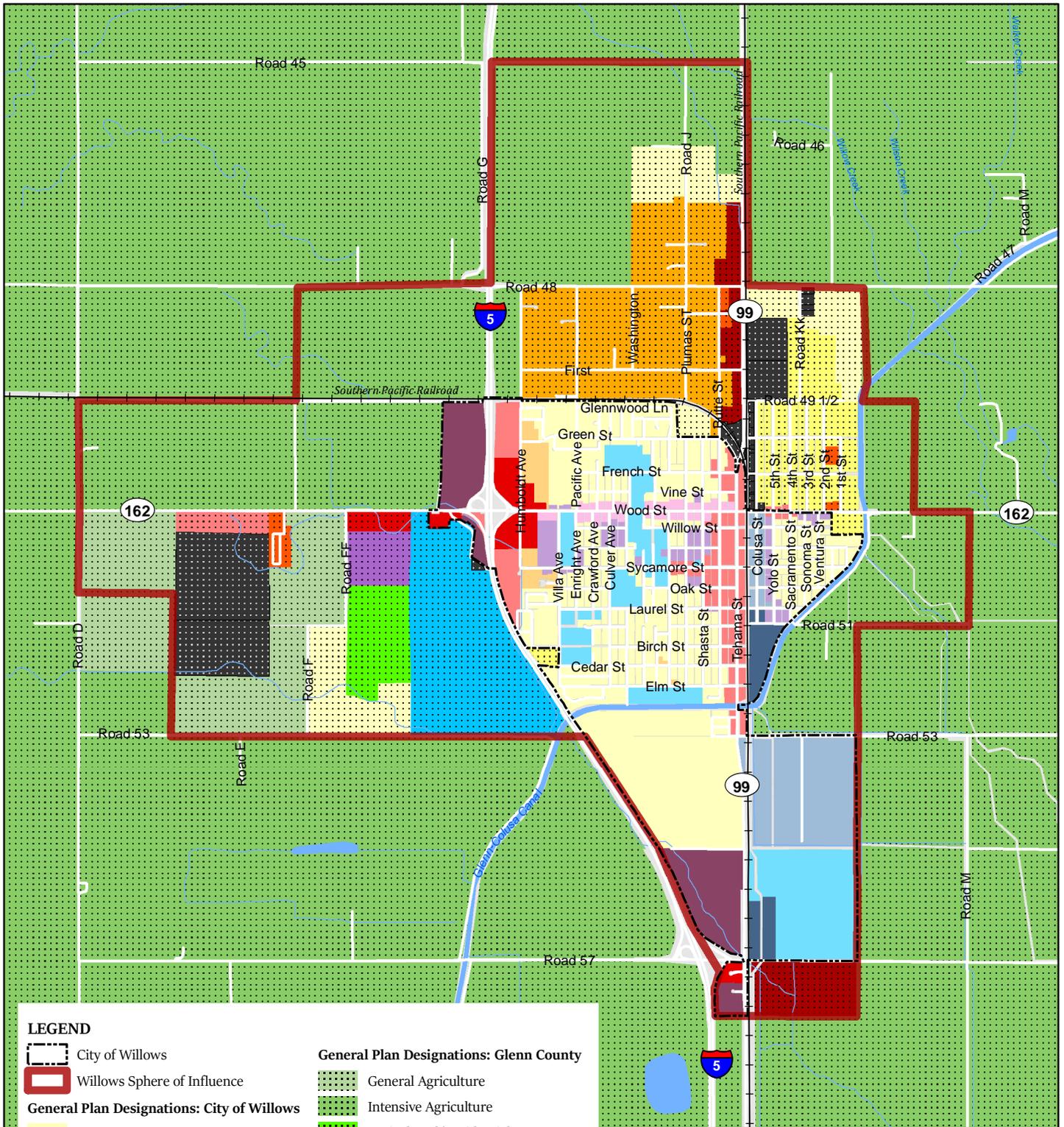
As described previously Alternative 1 failed to meet the most basic Project Objectives including addressing current planning issues and new requirements of State law.

Alternative 2

Like The Proposed Project, Alternative 2 reflects the current goals and vision expressed by city residents, businesses, decision-makers, and other stakeholders; through the updated policy document, and addresses new requirements of State law, including climate change planning, environmental justice, complete streets, etc. Alternative 2 meets the basic Project Objectives. However, without the updated Land Use Map, Alternative 2 provides less opportunities for high-quality housing options and development opportunities throughout the city.

Alternative 3

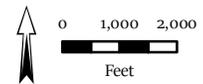
Like the proposed Project, Alternative 3 would satisfy many Project Objectives as it would adopt the updated policy document. This alternative would allow for less growth that would be allowed under the proposed Project. Objectives of the General Plan include establishing a greater connection between the General Plan and current planning issues, and being consistent with state law. Housing needs and the ability of support housing throughout the planning areas is locally and regionally important to supporting housing development and statewide housing goals. Alternative 3 is the environmentally superior alternative, as it was developed and refined to reduce as many environmental effects as possible while still meeting many of the project objectives. However, without additional opportunities for future growth within the SOI, Alternative 3 provides less options for housing and job creation throughout the planning area.



LEGEND

- City of Willows
 - Willows Sphere of Influence
- General Plan Designations: City of Willows**
- Low Density Residential
 - Multiple Family Residential
 - General Commercial
 - Highway Commercial
 - Commercial/Industrial Combining Use
 - General Industrial
 - Light Industrial
 - Entryway
 - Office and Professional
 - Open Space
 - Public Facilities and Services
- General Plan Designations: Glenn County**
- General Agriculture
 - Intensive Agriculture
 - Agricultural/Residential
 - Industrial
 - Public Facilities
 - Business Park
 - Community Commercial
 - Highway/Visitor Service Commercial
 - Service Commercial
 - Rural Residential
 - Single Family Residential
 - Suburban Residential
 - Multiple Family Residential

COUNTY OF GLENN, CALIFORNIA
FIGURE 5.0-1. GENERAL PLAN MAP
CITY OF WILLOWS



Sources: Glenn County; CalAtlas. Map date: November 8, 2019.

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CITY OF WILLOWS

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Appendix A

Notice of Preparation and NOP Comments



**Notice of Preparation and Scoping Meeting
Willows General Plan Update Environmental Impact Report**

Date: April 6, 2022

To: State Clearinghouse, Agencies, Organizations and Interested Parties

Subject: Notice of Preparation and Scoping Meeting for the Willows General Plan Update Environmental Impact Report

Scoping Meeting: **April 20, 2022, 6:00 p.m.**

Comment Period: **April 6, 2022 to May 9, 2022.**

The City of Willows (City) will serve as Lead Agency in the preparation of a programmatic Environmental Impact Report (EIR) for the City of Willows General Plan Update (Plan).

The purpose of this notice is (1) to serve as a Notice of Preparation (NOP) of an EIR pursuant to the State CEQA Guidelines Section 15082, (2) to advise and solicit comments and suggestions regarding the scope and content of the EIR to be prepared for the proposed project, and (3) to notice the public scoping meeting. The proposed project is a long-term General Plan consisting of policies that will guide future development activities and City actions. No specific development projects are proposed as part of the Plan. Information regarding the project description, project location, and topics to be addressed in the Draft EIR is provided below. Additional project documents and information (including the Proposed Draft General Plan) are available at the City of Willows, Community Development Department, Planning Division located at: City of Willows, 201 N Lassen Street, Willows, CA 95988, and on-line at:

<https://www.cityofwillows.org/dept/community-development-services-department/planning>

For questions regarding this notice, please contact Karen Mantele, Principal Planner at (530) 934-7041, or by email kmantele@cityofwillows.org.

Notice of Preparation 30-Day Comment Period

The City, as Lead Agency, requests that responsible and trustee agencies, and the Office of Planning and Research, respond in a manner consistent with Section 15082(b) of the CEQA Guidelines. Pursuant to Public Resources Code Section 21080.4, responsible agencies, trustee agencies and the Office of Planning and Research must submit any comments in response to this notice no later than 30 days after receipt. In accordance with the time limits established by CEQA, the NOP public review period will begin on April 6, 2022 and end on May 9, 2022.

In the event that the City does not receive a response from any Responsible or Trustee Agency by the end of the review period, the City may presume that the Responsible Agency or Trustee Agency has no response to make (State CEQA Guidelines Section 15082(b)(2)). All Comments in response to this notice must be submitted in writing at the address below, or via email, by the close of the 30-day NOP review period, which is 5:00 PM on May 9, 2022:

Karen Mantele
Principal Planner
Community Development Department, Planning Division
City of Willows
201 N Lassen Street
Willows, CA 95988
kmantele@cityofwillows.org

Scoping Meeting

The City will hold a scoping meeting to provide an opportunity for agency representatives and the public to assist the City in determining the scope and content of the EIR.

The scoping meeting will be held on **April 20, 2022 at 6:00pm, at:**

City Hall Council Chambers
City of Willows
201 N Lassen Street
Willows, CA 95988

For comments before or after the meeting or additional information, please contact Karen Mantele, Principal Planner at (530) 934-7041, or by email kmantele@cityofwillows.org.

Project Location and Setting

The City of Willows is located within California's Central Valley in the southern portion of Glenn County. Interstate 5 (I-5) connects Willows to Redding to the north and Sacramento to the south. State Route (SR) 32 connects Willows to Chico to the east. SR 162 connects Willows to the Mendocino National Forest to the west.

The Planning Area is the geographic area for which the Willows General Plan provides a framework for long-term plans for growth, resource conservation, and the provision of public services. State law requires the General Plan to include all territory within Willows' incorporated area as well as "any land outside its boundaries which in the planning agency's judgment bears relation to its planning" (California Government Code Section 65300). The Plan Area is in Glenn County. For the purposes of the General Plan, the Planning Area is defined as the Willows city limits and the surrounding Sphere of Influence (SOI), as defined by the Local Agency Formation Commission (LAFCO). The General Plan boundary (Planning Area) is shown in Figure 1 (Proposed General Plan Land Use Map).

Project Description

The City of Willows is preparing a comprehensive update to its existing General Plan, which was adopted in 1974, and underwent partial updates in 1981 and 2010. The General Plan Update is expected to be completed in 2022.

The City's proposed General Plan includes a broad goal and policy framework that guides land use and planning decisions within the city. The overall purpose of the General Plan is to create a policy framework that articulates a vision for the City's long-term physical form and development, while preserving and enhancing the quality of life for residents and increasing opportunities for high-quality local job growth and housing options. The key components of the General Plan will include broad goals for the future of Willows, and specific policies and actions that will help implement the stated goals.

The updated General Plan will guide the City's development and conservation through land use objectives and policy guidance. The City will implement the Plan by requiring development, infrastructure improvements, and other projects to be consistent with its policies and by implementing the actions included in the Plan, including subsequent project-level environmental review, as required under CEQA.

State law requires the City to adopt a comprehensive, long-term general plan for the physical development of its planning area. The Plan must include land use, circulation, housing, conservation, open space, noise, and safety elements, as specified in Government Code Section 65302, to the extent that the issues identified by State law exist in the City's planning area.

The Willows General Plan includes a comprehensive set of goals, policies, and actions (implementation measures), as well as a revised Land Use Map (Figure 1).

- A **goal** is a description of the general desired result that the City seeks to create through the implementation of the General Plan.
- A **policy** is a specific statement that guides decision-making as the City works to achieve its goals. Once adopted, policies represent statements of City regulations. The General Plan's policies set out the standards that will be used by City staff, the Planning Commission, and the City Council in their review of land development projects, resource protection activities, infrastructure improvements, and other City actions. Policies are on-going and don't necessarily require specific action on behalf of the City.
- An **action** is an implementation measure, procedure, technique, or specific program to be undertaken by the City to help achieve a specified goal or implement an adopted policy. The City must take additional steps to implement each action in the General Plan. An action is something that can and will be completed.

The Willows General Plan includes all of the State-mandated topics and elements noted above, and addresses additional topics, such as Environmental Justice (in the Land Use Element) and Climate Adaptation and Resiliency (in the Safety Element).

The Plan has been prepared to address the requirements of State law and the relevant items addressed in Government Code Section 65300 et seq. The Willows General Plan is intended to reflect the desires and vision of residents, businesses, and City Council.

The following objectives are identified for the proposed update to the General Plan:

- Develop a long-term vision for the City of Willows
- Engage a broad spectrum of the community members
- Engage key stakeholders to perpetuate long-term involvement
- Establish greater connections between the General Plan and current planning issues
- Educate the public on the City’s existing conditions, and the General Plan update process

Growth Projections

While no specific development projects are proposed as part of the Willows General Plan Update, the General Plan will accommodate future growth in Willows, including new businesses, expansion of existing businesses, and new residential uses. The buildout analysis assumes an approximately 20-year horizon, and 2040 is assumed to be the buildout year of the General Plan.

Growth projections should not be considered a prediction for growth, as the actual amount of development that will occur throughout the planning horizon of the General Plan is based on many factors outside of the City’s control. Actual future development would depend on future real estate and labor market conditions, property owner preferences and decisions, site-specific constraints, and other factors. New development and growth are largely dictated by existing development conditions, market conditions, and land turnover rates. Very few communities in California actually develop to the full potential allowed in their respective General Plans during the planning horizon.

As shown in Table 1 and Table 2, buildout of the General Plan could yield a total of up to approximately 689 housing units and approximately 717,834 square feet of non-residential building square footage within the City Limits. These projections are likely an overstatement of the level of growth that will occur in the Willows community over the next 20 years, given that these growth levels exceed historical growth rates in Willows. However, for the purposes of the General Plan EIR, these are the levels of growth that will be analyzed, given that these growth levels are feasible based on the development potential provided in the proposed Land Use Map.

TABLE 1: GROWTH PROJECTIONS - BUILDOUT OF VACANT LAND IN WILLOWS CITY LIMITS

Land Use Designation	Vacant Acreages (acre)	FAR ¹	Residential Units per Acre		Non-Residential Buildout (sf)		South Willows Residential Community ²	Total New Residential Units	
			from	to	from	to		from	to
City	164.99							641	734
Non-residential Land Uses									
Commercial/Industrial Combining Use	72.72	0.25	-	-	395,966		-	-	-
General Commercial	21.55	0.25	-	-	117,361		-	-	-
General Industrial	13.34	0.25	-	-	72,644		-	-	-
Highway Commercial	16.61	0.25	-	-	90,468		-	-	-
Light Industrial	3.36	0.25	-	-	18,313		-	-	-
Office and Professional	4.24	0.25	-	-	23,083		-	-	-
Public Facilities and Services	13.57	-	-	-	-		-	-	-
Residential Land Uses									
Low Density Residential	18.08	-	2	6	36	108	419	455	527
Multiple Family Residential	1.51	-	16	30	24	45	162	186	207
Notes:									
1- Assumes new non-residential development occurs at a FAR of 0.25 and is developed on 50% of the vacant parcels for each non-residential land use category.									
2- The South Willows Residential Community is an entitled project, and is assumed to be fully built-out by 2040									

SOURCES: CITY OF WILLOWS 2021; COUNTY OF GLENN 2021; PARCELQUEST PARCEL DATA 2022. DE NOVO PLANNING GROUP 2022.

TABLE 2: GROWTH PROJECTION – HOUSING UNITS IN WILLOWS CITY LIMITS

Total Buildout New Housing Units ¹	689
2020 Housing Units (existing)	2,458
2040 Housing Units (projected)	3,147
Mid-range Growth Projection (annual growth rate over 20 years)	1.40%

NOTES: 1- ASSUMES THAT ALL VACANT RESIDENTIAL PARCELS WILL DEVELOP AT THE MID-RANGE ALLOWED DENSITY

SOURCES: DE NOVO PLANNING GROUP 2022.

As shown in Table 3, buildout of the General Plan could yield a total of approximately 137 to 411 housing units and approximately 68,399 square feet of non-residential building square footage within the Willows SOI.

TABLE 3: GROWTH PROJECTIONS - BUILDOUT OF VACANT LAND IN WILLOWS SOI

Land Use Designation	Vacant Acreages (acre)	FAR*	Residential Units per Acre		Non-Residential Buildout (sq. ft)	Total New Residential Units	
			from	to		from	to
SOI	84.98	84.98				137	411
Non-residential Land Uses							
General Commercial	0.18	0.25	-		975	-	
General Industrial	1.95	0.25	-		10,637	-	
Highway Commercial	1.47	0.25	-		8,015	-	
Light Industrial	6.37	0.25	-		34,676	-	
Mixed Use	2.59	0.25	-		14,096	-	
Public Facilities and Services	3.94	-	-		-	-	
Residential Land Uses							
Low Density Residential	68.47	-	2	6	-	137	411
Note: *Assumes new non-residential development occurs at FAR of 0.25 is developed on 50% of the vacant parcels for each non-residential land use category.							

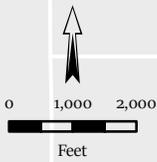
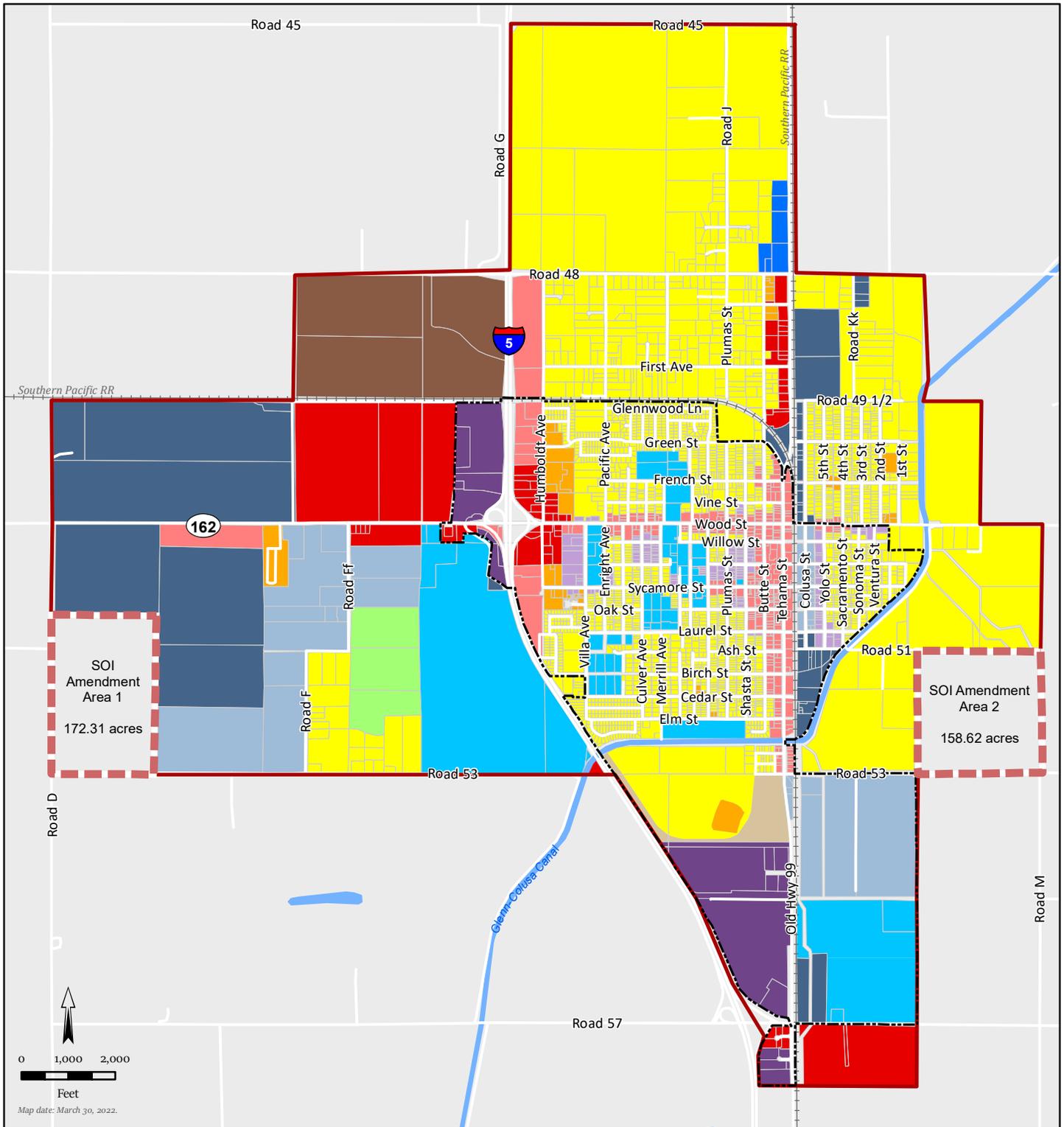
SOURCES: CITY OF WILLOWS 2021; COUNTY OF GLENN 2021; PARCELQUEST PARCEL DATA 2022. DE NOVO PLANNING GROUP 2022.

Program EIR Analysis

The City, as the Lead Agency under the California Environmental Quality Act (CEQA), will prepare a Program EIR for the Willows General Plan Update. The EIR will be prepared in accordance with CEQA, the CEQA Guidelines (Guidelines), relevant case law, and City procedures. No Initial Study will be prepared pursuant to Section 15063(a) of the CEQA Guidelines.

The EIR will analyze potentially significant impacts associated with adoption and implementation of the General Plan. In particular, the EIR will focus on areas that have development potential. The EIR will evaluate the full range of environmental issues contemplated under CEQA and the CEQA Guideline. At this time, the City anticipates that EIR sections will be organized in the following topical areas:

- Aesthetic Resources
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Geology, Soils, and Mineral Resources
- Greenhouse Gases, Climate Change, and Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation
- Utilities/Service Systems
- Wildfire
- Mandatory Findings of Significance/Cumulative Impacts
- Alternatives



Planning Areas
 City of Willows (dashed line) Willows Sphere of Influence (solid red line) Proposed SOI Amendment Area (dashed red line)

General Plan Designations

Low Density Residential	General Industrial
Multiple Family Residential	Office and Professional
Urban Reserve	Open Space
General Commercial	Public Facilities and Services
Highway Commercial	Agricultural/Residential*
Commercial/Industrial Combining Use	Mixed Use*
Light Industrial	

*County designation. See Glenn County General Plan.

CITY OF WILLOWS

FIGURE 1:
 PROPOSED SOI AMENDMENT
 AREAS



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
North Central Region
1701 Nimbus Road, Suite A
Rancho Cordova, CA 95670-4599
916-358-2900
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



May 3, 2022

Karen Mantele
Principal Planner
Community Development Department, Planning Division
City of Willows
201 N Lassen Street
Willows, CA 95988
kmantele@cityofwillows.org

Subject: WILLOWS GENERAL PLAN UPDATE DRAFT PROGRAM
ENVIRONMENTAL IMPACT REPORT
SCH# 2022040089

Dear Ms. Mantele:

The California Department of Fish and Wildlife (CDFW) received and reviewed the Notice of Preparation of an Environmental Impact Report (EIR) from the Community Development Department, Planning Division for the Willows General Plan Update (Project) in Glenn County pursuant the California Environmental Quality Act (CEQA) statute and guidelines.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish, wildlife, plants, and their habitats. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may need to exercise its own regulatory authority under the Fish and Game Code (Fish & G. Code).

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (*Id.*, § 1802.). Similarly, for purposes of CEQA, CDFW provides, as available, biological expertise during public agency environmental

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION SUMMARY

The Project site is located in Glenn County, encompassing the City of Willows, and immediately surrounding area.

The Project consists of a Programmatic Update to the City General Plan. The proposed Project is a long-term General Plan consisting of policies that will guide future development activities and City actions. No specific development projects are proposed as part of the Plan.

The Project description should include the whole action as defined in the CEQA Guidelines § 15378 and should include appropriate detailed exhibits disclosing the Project area including temporary impacted areas such as equipment stage area, spoils areas, adjacent infrastructure development, staging areas and access and haul roads if applicable.

As required by § 15126.6 of the CEQA Guidelines, the EIR should include an appropriate range of reasonable and feasible alternatives that would attain most of the basic Project objectives and avoid or minimize significant impacts to resources under CDFW's jurisdiction.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations presented below to assist the Community Development Department, Planning Division in adequately identifying and/or mitigating the Project's significant, or potentially significant, impacts on biological resources. The comments and recommendations are also offered to enable CDFW to adequately review and comment on the proposed Project with respect to impacts on biological resources. CDFW recommends that the forthcoming EIR address the following:

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Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the Project, the EIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats. CDFW recommends the EIR specifically include:

1. An assessment of all habitat types located within the Project footprint, and a map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association-based mapping and assessment be completed following, *The Manual of California Vegetation*, second edition (Sawyer 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.
2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the Project. CDFW recommends that the California Natural Diversity Database (CNDDDB), as well as previous studies performed in the area, be consulted to assess the potential presence of sensitive species and habitats. A nine United States Geologic Survey (USGS) 7.5-minute quadrangle search is recommended to determine what may occur in the region, larger if the Project area extends past one quad (see *Data Use Guidelines* on the Department webpage www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data). Please review the webpage for information on how to access the database to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the Project. CDFW recommends that CNDDDB Field Survey Forms be completed and submitted to CNDDDB to document survey results. Online forms can be obtained and submitted at: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>.

Please note that CDFW's CNDDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the Project site. Other sources for identification of species and habitats near or adjacent to the Project area should include, but may not be limited to, State and federal resource agency lists, California Wildlife Habitat Relationship System, California Native Plant Society Inventory, agency

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contacts, environmental documents for other projects in the vicinity, academics, and professional or scientific organizations.

3. A complete and recent inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern and California Fully Protected Species (Fish & G. Code § § 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. The EIR should include the results of focused species-specific surveys, completed by a qualified biologist, and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable. Species-specific surveys should be conducted in order to ascertain the presence of species with the potential to be directly, indirectly, on or within a reasonable distance of the Project activities. CDFW recommends the Community Development Department, Planning Division rely on survey and monitoring protocols and guidelines available at: www.wildlife.ca.gov/Conservation/Survey-Protocols. Alternative survey protocols may be warranted; justification should be provided to substantiate why an alternative protocol is necessary. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Some aspects of the Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought or deluge.
4. A thorough, recent (within the last two years), floristic-based assessment of special-status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see www.wildlife.ca.gov/Conservation/Plants).
5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The EIR should provide a thorough discussion of the Project's potential direct, indirect, and cumulative impacts on biological resources. To ensure that Project impacts on biological resources are fully analyzed, the following information should be included in the EIR:

1. The EIR should define the threshold of significance for each impact and describe the criteria used to determine whether the impacts are significant (CEQA

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Guidelines, § 15064, subd. (f)). The EIR must demonstrate that the significant environmental impacts of the Project were adequately investigated and discussed, and it must permit the significant effects of the Project to be considered in the full environmental context.

2. A discussion of potential impacts from lighting, noise, human activity, and wildlife-human interactions created by Project activities especially those adjacent to natural areas, exotic and/or invasive species occurrences, and drainages. The EIR should address Project-related changes to drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.
3. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the Project footprint, such as nearby public lands (e.g., National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Conservation or Recovery Plan, or other conserved lands).
4. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. The EIR should discuss the Project's cumulative impacts to natural resources and determine if that contribution would result in a significant impact. The EIR should include a list of present, past, and probable future projects producing related impacts to biological resources or shall include a summary of the projections contained in an adopted local, regional, or statewide plan, that consider conditions contributing to a cumulative effect. The cumulative analysis shall include impact analysis of vegetation and habitat reductions within the area and their potential cumulative effects. Please include all potential direct and indirect Project-related impacts to riparian areas, wetlands, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and/or special-status species, open space, and adjacent natural habitats in the cumulative effects analysis.

Mitigation Measures for Project Impacts to Biological Resources

The EIR should include appropriate and adequate avoidance, minimization, and/or mitigation measures for all direct, indirect, and cumulative impacts that are expected to occur as a result of the construction and long-term operation and maintenance of the Project. CDFW also recommends the environmental documentation provide scientifically supported discussion regarding adequate avoidance, minimization, and/or mitigation measures to address the Project's significant impacts upon fish and wildlife and their habitat. For individual projects, mitigation must be roughly proportional to the level of impacts, including cumulative impacts, in accordance with the provisions of

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CEQA (Guidelines § § 15126.4(a)(4)(B), 15064, 15065, and 16355). In order for mitigation measures to be effective, they must be specific, enforceable, and feasible actions that will improve environmental conditions. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Fully Protected Species (Fish & G. Code § 3511) have the potential to occur within or adjacent to the Project area, including, but not limited to: Bald Eagle (*Haliaeetus leucocephalus*). Fully protected species may not be taken or possessed at any time. Project activities described in the EIR should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to the Project area. CDFW also recommends the EIR fully analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends that the Community Development Department include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce indirect impacts to fully protected species.
2. *Species of Special Concern*: Several Species of Special Concern (SSC) have the potential to occur within or adjacent to the Project area, including, but not limited to: Northern Harrier (*Circus hudsonius*), Yellow-breasted Chat (*Icteria virens*), Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*), Yellow Warbler (*Setophaga petechia*), Short-eared Owl (*Asio flammeus*), Burrowing Owl (*Athene cunicularia*), white sturgeon (*Acipenser transmontanus*), hardhead (*Mylopharodon conocephalus*), American badger (*Taxidea taxus*), and Western pond turtle (*Emys marmorata*). Project activities described in the EIR should be designed to avoid any SSC that have the potential to be present within or adjacent to the Project area. CDFW also recommends that the EIR fully analyze potential adverse impacts to SSC due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends the Community Development Department include in the analysis how appropriate avoidance, minimization and mitigation measures will reduce impacts to SSC.
3. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDDB and are included in *The Manual of California Vegetation* (Sawyer 2009). The EIR should include measures to fully avoid and otherwise protect sensitive plant communities from Project-related direct and indirect impacts.
4. *Native Wildlife Nursey Sites*: CDFW recommends the EIR fully analyze potential adverse impacts to native wildlife nursey sites, including but not limited to bat

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maternity roosts. the City of Willows, and surrounding lands, may contain potential nursery site habitat for structure and/or tree roosting bats and is near potential foraging habitat. Bats are considered non-game mammals and are afforded protection by state law from take and/or harassment, (Fish & G. Code, § 4150; Cal. Code of Regs, § 251.1). CDFW recommends that the EIR fully identify the Project's potential impacts to native wildlife nursery sites, and include appropriate avoidance, minimization, and mitigation measures to reduce impacts or mitigate any potential significant impacts to bat nursery sites.

5. *Mitigation*: CDFW considers adverse Project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the EIR should include mitigation measures for adverse Project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of Project impacts. For unavoidable impacts, onsite habitat restoration, enhancement, or permanent protection should be evaluated and discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.

The EIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset Project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

6. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in the regional ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (1) the location of restoration sites and assessment of appropriate reference sites; (2) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (3) a schematic depicting the mitigation area; (4) a local seed and cuttings and planting schedule; (5) a description of the irrigation methodology; (6) measures to control exotic vegetation on site; (7) specific success criteria; (8) a detailed monitoring program; (9) contingency measures should the success criteria not be met; and (10) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

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CDFW recommends that local onsite propagules from within the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be appropriately timed to ensure the viability of the seeds when planted. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various Project components as appropriate. Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project. Examples may include retention of woody material, logs, snags, rocks, and brush piles. Fish and Game Code sections 1002, 1002.5 and 1003 authorize CDFW to issue permits for the take or possession of plants and wildlife for scientific, educational, and propagation purposes. Please see our website for more information on Scientific Collecting Permits at www.wildlife.ca.gov/Licensing/Scientific-Collecting#53949678-regulations-.

7. *Nesting Birds*: Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Migratory nongame native bird species are protected by international treaty under the federal MBTA of 1918, as amended (16 U.S.C. 703 *et seq.*). CDFW implemented the MBTA by adopting the Fish and Game Code section 3513. Fish and Game Code sections 3503, 3503.5 and 3800 provide additional protection to nongame birds, birds of prey, their nests, and eggs. Sections 3503, 3503.5, and 3513 of the Fish and Game Code afford protective measures as follows: section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Fish and Game Code or any regulation made pursuant thereto; section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by the Fish and Game Code or any regulation adopted pursuant thereto; and section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Potential habitat for nesting birds and birds of prey is present within the Project area. The Project should disclose all potential activities that may incur a direct or indirect take to nongame nesting birds within the Project footprint and its vicinity. Appropriate avoidance, minimization, and/or mitigation measures to avoid take must be included in the EIR.

CDFW recommends the EIR include specific avoidance and minimization measures to ensure that impacts to nesting birds or their nests do not occur. Project-specific avoidance and minimization measures may include, but not be

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limited to: Project phasing and timing, monitoring of Project-related noise (where applicable), sound walls, and buffers, where appropriate. The EIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the Project site. In addition to larger, protocol level survey efforts (e.g., Swainson's hawk surveys) and scientific assessments, CDFW recommends a final preconstruction survey be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted earlier.

8. *Moving out of Harm's Way*: Projects authorized in the future as a result of this Project are anticipated to result in the clearing of natural habitats that support native species. To avoid direct mortality, the Community Development Department should state in the EIR a requirement for a qualified biologist with the proper handling permits, will be retained to be onsite prior to and during all ground- and habitat-disturbing activities. Furthermore, the EIR should describe that the qualified biologist with the proper permits may move out of harm's way special-status species or other wildlife of low or limited mobility that would otherwise be injured or killed from Project-related activities, as needed. The EIR should also describe qualified biologist qualifications and authorities to stop work to prevent direct mortality of special-status species. CDFW recommends fish and wildlife species be allowed to move out of harm's way on their own volition, if possible, and to assist their relocation as a last resort. It should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for habitat loss.
9. *Translocation of Species*: Additionally, the EIR should cover a range of possibilities for mitigation. The use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species are generally experimental in nature and largely unsuccessful. Therefore, the EIR should describe additional mitigation measures utilizing habitat restoration, conservation, and/or preservation, in addition to avoidance and minimization measures, if it is determined that there may be impacts to rare, threatened, or endangered species.

The EIR should incorporate mitigation performance standards that would ensure that impacts are reduced to a less-than-significant level. Mitigation measures proposed in the EIR should be made a condition of approval of the Project. Please note that obtaining a permit from CDFW by itself with no other mitigation proposal may constitute mitigation deferral. CEQA Guidelines section 15126.4, subdivision (a)(1)(B) states that formulation of mitigation measures should not be deferred until some future time. To avoid deferring mitigation in this way, the EIR should describe avoidance, minimization and mitigation measures that would be implemented should the impact occur.

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California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in “take” (Fish & G. Code § 86 defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) of State-listed CESA species, either through construction or over the life of the Project.

State-listed species with the potential to occur in the area include, but are not limited to: Tricolored Blackbird (*Agelaius tricolor*), Swainson’s Hawk (*Buteo swainsoni*), Western Yellow-billed Cuckoo (*Coccyzus americanus occidentalis*), Bank Swallow (*Riparia riparia*), and giant gartersnake (*Thamnophis gigas*),

The EIR should disclose the potential of the Project to take State-listed species and how the impacts will be avoided, minimized, and mitigated. Please note that mitigation measures that are adequate to reduce impacts to a less-than significant level to meet CEQA requirements may not be enough for the issuance of an ITP. To issue an ITP, CDFW must demonstrate that the impacts of the authorized take will be minimized and fully mitigated (Fish & G. Code §2081 (b)). To facilitate the issuance of an ITP, if applicable, CDFW recommends the EIR include measures to minimize and fully mitigate the impacts to any State-listed species the Project has potential to take. CDFW encourages early consultation with staff to determine appropriate measures to facilitate future permitting processes and to engage with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service to coordinate specific measures if both State and federally listed species may be present within the Project vicinity.

Native Plant Protection Act

The Native Plant Protection Act (Fish & G. Code §1900 *et seq.*) prohibits the take or possession of State-listed rare and endangered plants, including any part or product thereof, unless authorized by CDFW or in certain limited circumstances. Take of State-listed rare and/or endangered plants due to Project activities may only be permitted through an ITP or other authorization issued by CDFW pursuant to California Code of Regulations, Title 14, section 786.9 subdivision (b).

Lake and Streambed Alteration Program

The EIR should identify all perennial, intermittent, and ephemeral rivers, streams, lakes, other hydrologically connected aquatic features, and any associated biological resources/habitats present within the entire Project footprint (including utilities, access, and staging areas). The environmental document should analyze all potential temporary, permanent, direct, indirect and/or cumulative impacts to the above-mentioned features and associated biological resources/habitats that may occur

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because of the Project. If it is determined the Project will result in significant impacts to these resources the EIR shall propose appropriate avoidance, minimization and/or mitigation measures to reduce impacts to a less-than-significant level.

Section 1602 of the Fish and Game Code requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

1. Substantially divert or obstruct the natural flow of any river, stream or lake;
2. Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
3. Deposit debris, waste, or other materials where it may pass into any river, stream or lake.

Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

If upon review of an entity's notification, CDFW determines that the Project activities may substantially adversely affect an existing fish or wildlife resource, a Lake and Streambed Alteration (LSA) Agreement will be issued which will include reasonable measures necessary to protect the resource. CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if one is necessary, the EIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the Project may avoid or reduce impacts to fish and wildlife resources. Notifications for projects involving timber harvesting operations must be submitted using paper notification forms. All other LSA Notification types must be submitted online through CDFW's Environmental Permit Information Management System (EPIMS). For more information about EPIMS, please visit <https://wildlife.ca.gov/Conservation/Environmental-Review/EPIMS>. More information about LSA Notifications, paper forms and fees may be found at <https://www.wildlife.ca.gov/Conservation/Environmental-Review/LSA>.

Please note that other agencies may use specific methods and definitions to determine impacts to areas subject to their authorities. These methods and definitions often do not include all needed information for CDFW to determine the extent of fish and wildlife resources affected by activities subject to Notification under Fish and Game Code section 1602. Therefore, CDFW does not recommend relying solely on methods developed specifically for delineating areas subject to other agencies' jurisdiction (such as United States Army Corps of Engineers) when mapping lakes, streams, wetlands, floodplains, riparian areas, etc. in preparation for submitting a Notification of an LSA.

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CDFW relies on the lead agency environmental document analysis when acting as a responsible agency issuing an LSA Agreement. CDFW recommends lead agencies coordinate with us as early as possible, since potential modification of the proposed Project may avoid or reduce impacts to fish and wildlife resources and expedite the Project approval process.

The following information will be required for the processing of an LSA Notification and CDFW recommends incorporating this information into any forthcoming CEQA document(s) to avoid subsequent documentation and Project delays:

1. Mapping and quantification of lakes, streams, and associated fish and wildlife habitat (e.g., riparian habitat, freshwater wetlands, etc.) that will be temporarily and/or permanently impacted by the Project, including impacts from access and staging areas. Please include an estimate of impact to each habitat type.
2. Discussion of specific avoidance, minimization, and mitigation measures to reduce Project impacts to fish and wildlife resources to a less-than-significant level. Please refer to section 15370 of the CEQA Guidelines.

Based on review of maps, aerial photography and observation of the area from public roadways, the Project site supports a number of natural waterways and associated riparian habitat including: Walker Creek, Wilson Creek, Willow Creek, Logan Creek, the Sacramento River and many unnamed seasonal streams and channels as well as agricultural irrigation water supply and drainage channels which provide habitat for some of the previously identified listed species (above). CDFW recommends the EIR fully identify the Project's potential impacts to the streams and/or associated riparian vegetation and wetlands.

CHEMICAL USE

Rodenticides that control small mammal populations would also reduce available burrows, making the habitat no longer suitable for Burrowing Owl, giant gartersnake and other sensitive wildlife species. Lack of underground refugia could result in increased exposure to predators, heat, and other elements. As such, CDFW recommends the project avoid use of chemical rodenticides. Additionally, the widespread use of rodenticides has been documented to result in wildlife losses due to non-target exposure of fully protected and listed species as well as losses through secondary exposure (McMillin et al. 2008, Hosea 2000).

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural

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communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be found at the following link:

<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be submitted online or mailed electronically to CNDDDB at the following email address: CNDDDB@wildlife.ca.gov.

FILING FEES

The Project, as proposed, would have an effect on fish and wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Community Development Department and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code § 711.4; Pub. Resources Code, § 21089.)

CONCLUSION

Pursuant to Public Resources Code sections 21092 and 21092.2, CDFW requests written notification of proposed actions and pending decisions regarding the Project. Written notifications shall be directed to: California Department of Fish and Wildlife North Central Region, 1701 Nimbus Road, Rancho Cordova, CA 95670.

CDFW appreciates the opportunity to comment on the NOP of the EIR for the City of Willows General Plan Update and recommends that the Community Development Department address CDFW's comments and concerns in the forthcoming EIR. CDFW personnel are available for consultation regarding biological resources and strategies to minimize impacts.

If you have any questions regarding the comments provided in this letter, or wish to schedule a meeting and/or site visit, please contact Robert Hosea, Environmental Scientist (530) 708-1199 or robert.hosea@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Kelley Barker
778EDA8AE45F4C9...

Kelley Barker
Environmental Program Manager

ec: Juan Torres, Senior Environmental Scientist (Supervisory)
Robert (Bob) Hosea Environmental Scientist

CEQACommentLetters@wildlife.ca.gov
Department of Fish and Wildlife

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Office of Planning and Research, State Clearinghouse, Sacramento

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McMillin, S. C., R.C. Hosea, B.J. Finlayson, B.L. Cypher, and A Mekebri. 2008. Anticoagulant Rodenticide Exposure in an Urban Population of the San Joaquin Kit Fox. Proc.23rd Vertebrate. Pest Conf. (R. M. Timm and M. B. Madon, Eds.) Published at Univ. of Calif., Davis. Pp. 163-165.

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Jared Blumenfeld
Secretary for
Environmental Protection



Department of Toxic Substances Control

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
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Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

April 19, 2022

Ms. Karen Mantele
Principal Planner
City of Willows
201 N Lassen Street
Willows, California 95988
KMantele@cityofwillows.org

NOTICE OF PREPARATION OF AN ENVIRONMENTAL IMPACT REPORT FOR
WILLOWS GENERAL PLAN UPDATE – DATED APRIL 6, 2022
(STATE CLEARINGHOUSE NUMBER: 2022040089)

Dear Ms. Mantele:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation of an Environmental Impact Report (EIR) for the Willows General Plan Update (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, work in close proximity to mining or suspected mining or former mining activities, presence of site buildings that may require demolition or modifications, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the Hazards and Hazardous Materials section of the EIR:

1. The EIR should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The EIR should also identify the mechanism(s) to initiate

any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

2. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the EIR.
3. If any sites within the project area or sites located within the vicinity of the project have been used or are suspected of having been used for mining activities, proper investigation for mine waste should be discussed in the EIR. DTSC recommends that any project sites with current and/or former mining operations onsite or in the project site area should be evaluated for mine waste according to DTSC's 1998 [Abandoned Mine Land Mines Preliminary Assessment Handbook](#).
4. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 [Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers](#).
5. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to [DTSC's 2001 Information Advisory Clean Imported Fill Material](#).
6. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the EIR. DTSC recommends the current and former agricultural lands be evaluated in

accordance with DTSC's 2008 [Interim Guidance for Sampling Agricultural Properties \(Third Revision\)](#).

Additionally, DTSC recommends reviewing DTSC's [Envirostor](#) data management system and the State Water Resource Control Board's [GeoTracker](#) data management system for potentially impacted sites within the area covered by the Project.

DTSC appreciates the opportunity to comment on the EIR. Should you need any assistance with an environmental investigation, please visit DTSC's [Site Mitigation and Restoration Program](#) page to apply for lead agency oversight. Additional information regarding voluntary agreements with DTSC can be found at [DTSC's Brownfield website](#).

If you have any questions, please contact me at (916) 255-3710 or via email at Gavin.McCreary@dtsc.ca.gov.

Sincerely,



Gavin McCreary
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
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NATIVE AMERICAN HERITAGE COMMISSION



April 15, 2022

Karen Mantele, Principal Planner
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NAHC.ca.gov

Re: 2022040089, Willows General Plan Update Project, Glenn County

Dear Ms. Mantele:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, § 15064.5 (b) (CEQA Guidelines § 15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines § 15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project:

Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- a. A brief description of the project.
- b. The lead agency contact information.
- c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report:

A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- a. Alternatives to the project.
- b. Recommended mitigation measures.
- c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- a. Type of environmental review necessary.
- b. Significance of the tribal cultural resources.
- c. Significance of the project's impacts on tribal cultural resources.
- d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
- b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

- 7. Conclusion of Consultation:** Consultation with a tribe shall be considered concluded when either of the following occurs:
- a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
- 8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document:** Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
- 9. Required Consideration of Feasible Mitigation:** If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
- 10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:**
- a.** Avoidance and preservation of the resources in place, including, but not limited to:
 - i.** Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i.** Protecting the cultural character and integrity of the resource.
 - ii.** Protecting the traditional use of the resource.
 - iii.** Protecting the confidentiality of the resource.
 - c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
- 11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource:** An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
- a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPA.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. **Tribal Consultation:** If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation.** There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality:** Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation:** Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address:
Cameron.Vela@nahc.ca.gov.

Sincerely,

Cameron Vela

Cameron Vela
Cultural Resources Analyst

cc: State Clearinghouse

Appendix B

Noise Inputs



Environmental Noise Assessment

Willows General Plan Update EIR

City of Willows, California

July 5, 2022

Project # 190703

Prepared for:

DE NOVO PLANNING GROUP



De Novo Planning Group
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Appendix A: Acoustical Terminology

Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
ASTC	Apparent Sound Transmission Class. Similar to STC but includes sound from flanking paths and correct for room reverberation. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Attenuation	The reduction of an acoustic signal.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by +5 dBA and nighttime hours weighted by +10 dBA.
DNL	See definition of Ldn.
IIC	Impact Insulation Class. An integer-number rating of how well a building floor attenuates impact sounds, such as footsteps. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz (Hz).
Ldn	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
Leq	Equivalent or energy-averaged sound level.
Lmax	The highest root-mean-square (RMS) sound level measured over a given period of time.
L(n)	The sound level exceeded a described percentile over a measurement period. For instance, an hourly L50 is the sound level exceeded 50% of the time during the one-hour period.
Loudness	A subjective term for the sensation of the magnitude of sound.
NIC	Noise Isolation Class. A rating of the noise reduction between two spaces. Similar to STC but includes sound from flanking paths and no correction for room reverberation.
NNIC	Normalized Noise Isolation Class. Similar to NIC but includes a correction for room reverberation.
Noise	Unwanted sound.
NRC	Noise Reduction Coefficient. NRC is a single-number rating of the sound-absorption of a material equal to the arithmetic mean of the sound-absorption coefficients in the 250, 500, 1000, and 2,000 Hz octave frequency bands rounded to the nearest multiple of 0.05. It is a representation of the amount of sound energy absorbed upon striking a particular surface. An NRC of 0 indicates perfect reflection; an NRC of 1 indicates perfect absorption.
RT60	The time it takes reverberant sound to decay by 60 dB once the source has been removed.
Sabin	The unit of sound absorption. One square foot of material absorbing 100% of incident sound has an absorption of 1 Sabin.
SEL	Sound Exposure Level. SEL is a rating, in decibels, of a discrete event, such as an aircraft flyover or train pass by, that compresses the total sound energy into a one-second event.
SPC	Speech Privacy Class. SPC is a method of rating speech privacy in buildings. It is designed to measure the degree of speech privacy provided by a closed room, indicating the degree to which conversations occurring within are kept private from listeners outside the room.
STC	Sound Transmission Class. STC is an integer rating of how well a building partition attenuates airborne sound. It is widely used to rate interior partitions, ceilings/floors, doors, windows and exterior wall configurations. The STC rating is typically used to rate the sound transmission of a specific building element when tested in laboratory conditions where flanking paths around the assembly don't exist. A larger number means more attenuation. The scale, like the decibel scale for sound, is logarithmic.
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.
Impulsive	Sound of short duration, usually less than one second, with an abrupt onset and rapid decay.
Simple Tone	Any sound which can be judged as audible as a single pitch or set of single pitches.



Appendix B: Traffic Noise Calculation Inputs and Results



Appendix B-1

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 190703

Description: Willows General Plan Update - Existing (2019)

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset			Level, dBA
											60 dBA	65 dBA	70 dBA	
1	Wood St (Washington St to Murdock Ave)	10,644	79	0	21	1.0%	1.0%	35	70	0	117	54	25	63.4
2	County Road 57 (Road D to I-5 SB Ramps)	291	79	0	21	1.0%	1.0%	55	180	0	23	10	5	46.5
3	N Tehama (French St to SR 162)	5,361	98	0	2	1.0%	1.0%	35	35	0	41	19	9	61.0
4	N Tehama (SR 162 to W Willow St)	5,029	98	0	2	1.0%	1.0%	35	40	0	39	18	8	59.9
5	Hwy 99W (Road M to County Road 57)	1,720	79	0	21	1.0%	1.0%	55	220	0	74	34	16	52.9
6	Hwy 99W (County Road 57 to South Ct)	1,911	79	0	21	1.0%	1.0%	55	115	0	79	37	17	57.6
7	Wood St (N Tehama St to N Colusa St)	5,966	79	0	21	1.0%	1.0%	35	35	0	80	37	17	65.4
8	County Road 57 (Hwy 99W to Road M)	641	79	0	21	1.0%	1.0%	55	50	0	38	18	8	58.2
9	Interstate 5 (Road 57 to State Hwy 162)	27,400	79	0	21	6.9%	21.8%	70	110	0	1303	605	281	76.1



Appendix B-2

FHWA-RD-77-108 Highway Traffic Noise Prediction Model

Project #: 190703

Description: Willows General Plan Update - Future (2040)

Ldn/CNEL: Ldn

Hard/Soft: Soft

Segment	Roadway Segment	ADT	Day %	Eve %	Night %	% Med. Trucks	% Hvy. Trucks	Speed	Distance	Offset (dB)	Contours (ft.) - No Offset			Level, dBA
											60 dBA	65 dBA	70 dBA	
1	Wood St (Washington St to Murdock Ave)	11,500	79	0	21	1.0%	1.0%	35	70	0	124	57	27	63.7
2	County Road 57 (Road D to I-5 SB Ramps)	300	79	0	21	1.0%	1.0%	55	180	0	23	11	5	46.6
3	N Tehama (French St to SR 162)	5,800	98	0	2	1.0%	1.0%	35	35	0	43	20	9	61.4
4	N Tehama (SR 162 to W Willow St)	5,450	98	0	2	1.0%	1.0%	35	40	0	41	19	9	60.2
5	Hwy 99W (Road M to County Road 57)	1,850	79	0	21	1.0%	1.0%	55	220	0	77	36	17	53.2
6	Hwy 99W (County Road 57 to South Ct)	2,050	79	0	21	1.0%	1.0%	55	115	0	83	38	18	57.9
7	Wood St (N Tehama St to N Colusa St)	6,450	79	0	21	1.0%	1.0%	35	35	0	84	39	18	65.7
8	County Road 57 (Hwy 99W to Road M)	700	79	0	21	1.0%	1.0%	55	50	0	40	19	9	58.6
9	Interstate 5 (Road 57 to State Hwy 162)	27,400	79	0	21	6.9%	21.8%	70	110	0	1303	605	281	76.1



Appendix C

Noise Barrier Reductions

Appendix C: Example Loading Dock Noise Barrier Reductions

Appendix C-1 : Barrier Insertion Loss Calculation

Project Information:

Project Name: Willows GPU
 Location(s): Example Loading Dock - 100' with 12' sound wall

Noise Level Data:

Source Description: Loading Dock
 Source Noise Level, dBA Leq: 66.0
 Source Frequency (Hz): 1000
 Source Height (ft): 8

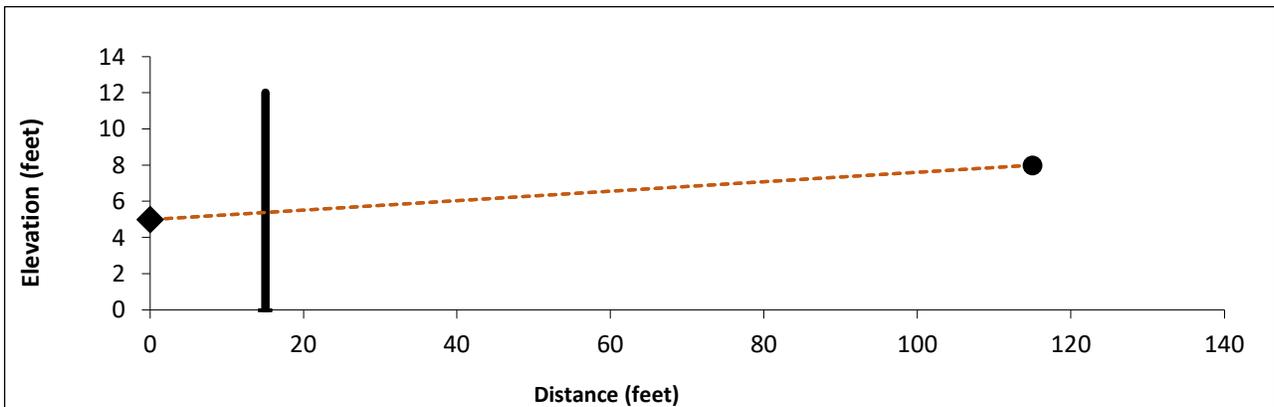
Site Geometry:

Receiver Description: Sensitive Use
 Source to Barrier Distance (C_1): 100
 Barrier to Receiver Distance (C_2): 15
 Pad/Ground Elevation at Receiver: 0
 Receiver Elevation¹: 5
 Base of Barrier Elevation: 0
 Starting Barrier Height 12

Barrier Effectiveness

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
12	12	-13	53	Yes
13	13	-14	52	Yes
14	14	-15	51	Yes
15	15	-15	51	Yes
16	16	-16	50	Yes
17	17	-17	49	Yes
18	18	-17	49	Yes
19	19	-17	49	Yes
20	20	-17	49	Yes
21	21	-17	49	Yes
22	22	-17	49	Yes

Notes: ¹ Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)



Appendix C-2 : Barrier Insertion Loss Calculation

Project Information:

Project Name: Willows GPU
 Location(s): Example Loading Dock - 250' with 12' sound wall

Noise Level Data:

Source Description: Loading Dock
 Source Noise Level, dBA Leq: 58.0
 Source Frequency (Hz): 1000
 Source Height (ft): 8

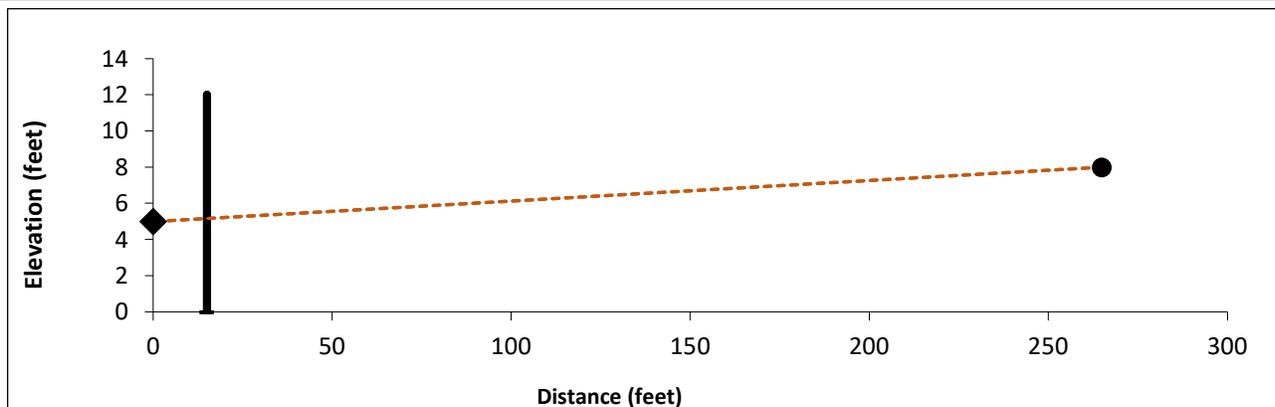
Site Geometry:

Receiver Description: Sensitive Use
 Source to Barrier Distance (C_1): 250
 Barrier to Receiver Distance (C_2): 15
 Pad/Ground Elevation at Receiver: 0
 Receiver Elevation¹: 5
 Base of Barrier Elevation: 0
 Starting Barrier Height 12

Barrier Effectiveness

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
12	12	-13	45	Yes
13	13	-14	44	Yes
14	14	-15	43	Yes
15	15	-15	43	Yes
16	16	-16	42	Yes
17	17	-16	42	Yes
18	18	-17	41	Yes
19	19	-17	41	Yes
20	20	-17	41	Yes
21	21	-17	41	Yes
22	22	-17	41	Yes

Notes: ¹ Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)



Appendix C-3 : Barrier Insertion Loss Calculation

Project Information:

Project Name: Willows GPU
 Location(s): Example Loading Dock - 150' with building shielding

Noise Level Data:

Source Description: Loading Dock
 Source Noise Level, dBA Leq: 62.5
 Source Frequency (Hz): 1000
 Source Height (ft): 8

Site Geometry:

Receiver Description: Sensitive Use
 Source to Barrier Distance (C_1): 150
 Barrier to Receiver Distance (C_2): 15
 Pad/Ground Elevation at Receiver: 0
 Receiver Elevation¹: 5
 Base of Barrier Elevation: 0
 Starting Barrier Height 20

Barrier Effectiveness

Top of Barrier Elevation (ft)	Barrier Height (ft)	Insertion Loss, dB	Noise Level, dB	Barrier Breaks Line of Site to Source?
20	20	-17	45	Yes
21	21	-17	45	Yes
22	22	-17	45	Yes
23	23	-17	45	Yes
24	24	-17	45	Yes
25	25	-17	45	Yes
26	26	-18	44	Yes
27	27	-18	44	Yes
28	28	-18	44	Yes
29	29	-18	44	Yes
30	30	-18	44	Yes

Notes: ¹ Standard receiver elevation is five feet above grade/pad elevations at the receiver location(s)

