City of Chico 2025 Sanitary Sewer Master Plan Update Project

Draft Initial Study / Proposed Negative Declaration

CAPITAL PROJECT NO. 50490

Lead Agency:

City of Chico, Public Works – Engineering Department
411 Main Street, 2nd Floor
Chico, California 95928

February 2025

Prepared By:

LSA

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LIST OF ABBREVIATIONS AND ACRONYMS

°F	degrees Fahrenheit
AAF	average annual flow
AB	Assembly Bill
AC	Airport Commercial
ADU	Accessory Dwelling Unit
ADWF	average dry-season wastewater flow
AIA	Airport Influence Area
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Commission Plan
AM	Airport Manufacturing
amsl	above mean sea level
AP	Airport Public Facilities
APS	Alternative Planning Strategy
AQMP	Air Quality Management Plan
BCAG	Butte County Association of Governments
BCAQMD	Butte County Air Quality Management District
BGEPA	Bald and Golden Eagle Protection Act
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
Cal Water	California Water Service

Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CC	Community Commercial
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Conservation, and Liability Act
CESA	California Endangered Species Act
CFD	Chico Fire Department
CFR	Code of Federal Regulations
CGS	California Geologic Survey
CH_4	methane
City	City of Chico
CMA	Chico Municipal Airport
CMC	Chico Municipal Code
CN	Neighborhood Commercial

CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalents
COF	consequence of failure
County	Butte County
CPD	Chico Police Department
CPUC	California Public Utilities Commission
CR	Regional Commercial
CRA	Chico Regional Airport
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CS	Services Commercial
CSUC	California State University, Chico
CUAFRA	Chico Urban Area Fire and Rescue Agreement
CUSD	Chico Unified School District
CWA	Clean Water Act
dBA	A-weighted decibels
DEIR	Draft Environmental Impact Report
DMA 2000	Disaster Mitigation Action of 2000
DN	Downtown North
DS	Downtown South
DTSC	Department of Toxic Substances Control

EDU	Equivalent Dwelling Unit
EIR	Environmental Impact Report
EO	Executive Order
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
First Update	First Update to the Climate Change Scoping Plan
FMMP	Farmland Mapping and Monitoring Program
FMP	Flow Monitoring Program
General Permit	General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities
GHG	greenhouse gas
GWI	groundwater infiltration
GWP	Global Warming Potential
HCP	Habitat Conservation Plan
HFC	hydrofluorocarbons
IOMU	Industrial Office Mixed-Use
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
IS/ND	Initial Study/Negative Declaration
kWh	kilowatt hours
LED	Light Emitting Diode

LHMP	Local Hazard Mitigation Plan
LID	Low Impact Development
LOS	level of service
LSA	LSA Associates, Inc.
MBTA	Migratory Bird Treaty Act
MEP	maximum extent practicable
MFR	Multi-Family Residential
mgd	million gallons per day
ML	Light Manufacturing
MLD	Most Likely Descendant
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
ND	Negative Declaration
MOA	Military Operations Areas
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MT	metric tons
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Communities Conservation Plan
ND	Negative Declaration
NEIC	Northeast Information Center

NFIP	National Flood Insurance Program
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRMP	Natural Resources Management Plan
NVWM	North Valley Waste Management
NWI	National Wetlands Inventory
O_3	ozone
OC	Office Commercial
OR	Office Residential
OS1	Primary Open Space
OS2	Secondary Open Space
OSHA	Occupational Safety and Health Administration
Ozone Attainment Plan	Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan
PCBs	polychlorinated biphenyls
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric
PM_{10}	particulate matter less than 10 microns in diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in diameter
POF	Probability of Failure

Porter-Cologne Act	Porter-Cologne Water Quality Control Act
PQ	Public/Quasi Public Facilities
PRC	Public Resources Code
Project	2025 Sanitary Sewer Master Plan Update
PVC	polyvinyl chloride
PWWF	peak wet-weather wastewater flow
QSD	Qualified SWPPP Developer
R&R	Rehabilitation and Replacement
R1	Low Density Residential
R2	Medium Density Residential
R3	Medium-High Density Residential
R4	High Density Residential
RMU	Residential Mixed Use
ROG	reactive organic gases
RPS	Renewable Portfolio Standard
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCS	Sustainable Community Strategy
SF_6	sulfur hexafluoride
SFR	Single-Family Residential
SIP	State Implementation Plan
SMARA	California Surface Mining and Reclamation Act of 1975
SO_2	sulfur dioxide

SOI	Sphere of Influence
SPA	Special Planning Area
SR	State Route
SRA	State Responsibility Area
SSMP	Sanitary System Management Plan
SVAB	Sacramento Valley Air Basin
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Loads
TND	Traditional Mixed-Use
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VDECS	Verified Diesel Emission Control Strategies
VMT	vehicle miles traveled
VOC	volatile organic compound
WPCP	Water Pollution Control Plant

1.0 PROJECT INFORMATION

1. **Project Title:**

   City of Chico 2025 Sanitary Sewer Master Plan Update Project

2. **Lead Agency Name and Address:**

   City of Chico
   411 Main Street, 2nd Floor
   Chico, California 95928

   Mailing Address:
   P.O. Box 3420
   Chico, California 95927

3. **Contact Person and Phone Number:**

   Lead Agency Contact
   Tracy Bettencourt, MPA, AICP
   Senior Planner
   (530) 879-6903

   CEQA Consultant
   LSA Associates, Inc.
   Dena Giacomini, Project Manager, Associate/Senior Planner
   (805) 782-0745

4. **Project Location:**

   The City of Chico (City) 2025 Sanitary Sewer Master Plan Update (Project) is located within the Sphere of Influence (SOI) of the City, in Butte County, California.

   The centroid of the Project and the City is latitude 39°43'46.56" N and longitude 121°50'18.99" W.

5. **General Plan Designation:**

   The Project contains all land uses present within the City's 2030 General Plan Land Use Element.

6. **Zoning:**

   The Project is within the SOI and contains all zoning designations present within the City's zoning code and zoning map.

7. **Description of Project:**

   The City prepared the 2025 Sanitary Sewer Master Plan Update, which aims to update the 2013 Sanitary Sewer Master Plan. The Project would assess sewer improvements and infrastructure needs over the next 10 years. The Project identifies potential future sewer projects, addresses existing and future deficiencies, and highlights areas that may require expansion to adequately serve both the current and future population. This planning effort is aligned with the City's 2030

General Plan build out and implements the General Plan goals, policies, and actions requiring the City to update and maintain the 2025 Sanitary Sewer Master Plan (Action PPFS-4.1.2).

8. Surrounding Land Uses and Setting:

Chico is located in Butte County, in the Northern Sacramento Valley of California. The City is approximately 90 miles northeast of Sacramento and approximately 72 miles southeast of Redding, California. Chico encompasses approximately 17,000 acres, which translates to roughly 26.5 square miles. The City is bordered by the Sierra Nevada Mountains and foothills to the east, and by open space and agricultural land to the north, south, and west.

9. Other Public Agencies Whose Approval is Required (e.g., permits, financial approval, or participation agreements):

Role	Description
Lead Agency	The City is the lead agency with principal responsibility for approving or carrying out the projects identified in the 2025 Sanitary Sewer Master Plan Update.
Responsible Agencies	Additional agencies may have approval authority over one or more aspects of the Project.
Trustee Agencies	State agencies with general management authority over specified natural resources of the State when the resources may occur within the jurisdictional area include the State Water Resources Control Board, the Central Valley Regional Water Quality Control Board, the California Department of Fish and Wildlife, and/or the Central Valley Flood Protection Board.
Other Interested Agencies	Additional agencies that may be interested in projects that derive from the 2025 Sanitary Sewer Master Plan Update and their impacts, although they would have no authority over approval or adoption of this document, may include the Butte County Air Quality Management District.

10. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resource Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

The City did not receive written correspondence from local tribes pursuant to Public Resources Code (PRC) Section 21080.3.1 requesting notification of proposed projects. Further discussion regarding Cultural and Tribal Resources can be found in Chapter 4.0 Environmental Factors Potentially Affected, Sections 4.6 and 4.19, respectively.

2.0 INTRODUCTION

LSA Associates, Inc. (LSA) has prepared this Initial Study/Negative Declaration (IS/ND) on behalf of the City to address the environmental effects of the proposed Project. This document has been prepared in accordance with the California Environmental Quality Act (CEQA), PRC Section 21000 *et seg*. The City is the CEQA lead agency for this Project.

2.1 REGULATORY INFORMATION

An Initial Study (IS) is a document prepared by a lead agency to determine whether a project may have a significant effect on the environment. In accordance with the California Code of Regulations, Title 14 (Chapter 3, Section 15000, et seq.)—also known as the CEQA Guidelines—Section 15064 (a)(1) states that an Environmental Impact Report (EIR) must be prepared if there is substantial evidence in light of the whole record that the project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less than significant levels. A Negative Declaration (ND) may be prepared instead if the lead agency finds that there is *no* substantial evidence in light of the whole record that the project may have a significant effect on the environment. An ND is a written statement describing the reasons why a proposed project not otherwise exempt from CEQA would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a ND or Mitigated Negative Declaration (MND) shall be prepared for a project subject to CEQA when either:

a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or

b. The IS identified potentially significant effects, but:

    1) Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS released from public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and

    2) There is no substantial evidence, in light of the whole record before the agency, that the proposed project as *revised* may have a significant effect on the environment.

2.2 DOCUMENT FORMAT

This document is organized as follows:

- Chapter 1.0, Project Information, provides a brief overview of the Project.
- Chapter 2.0, Introduction and Purpose, provides a discussion of the IS/ND's components, objectives, and regulatory requirements.

- Chapter 3.0, Project Description, provides a detailed description of the proposed Project.
- Chapter 4.0, Impact Analysis, presents the CEQA checklist and environmental analysis for all impact areas and mandatory findings of significance. If the Project does not have the potential to significantly impact a given issue area, the relevant section provides a brief discussion of the reasons why impacts are not expected.
- Chapter 5.0, List of Preparers for this IS/ND.
- Chapter 6.0, References, lists the references cited throughout the document to support the IS/ND analysis.

2.3 INTENDED USE OF THIS INITIAL STUDY

The City formally initiated the environmental process for the proposed Project with the preparation of this IS/ND. As identified in the following analyses, Project impacts related to various environmental issues either would not occur, or are less than significant (when measured against established significance thresholds).

State CEQA Guidelines Section 15150 permits the incorporation by reference of all or portions of other documents that are generally available to the public. The IS/ND has been prepared using information from City planning and environmental documents, technical studies specifically prepared for the Project, and other publicly available data. The documents used in preparation of the IS/ND are identified in **Chapter 4.0** and are hereby incorporated by reference.

This document is not intended to serve as a CEQA tiering document for the future implementation of specific projects outlined in the 2025 Sanitary Sewer Master Plan (SSMP). The City would provide additional CEQA documentation to address additional potential impacts and mitigation measures not covered in this IS/ND. For the purposes of this document, the Project has been reviewed to ensure compliance with the City of Chico General Plan, as well as other applicable policies and regulations. Each proposed improvement recommended by the Project would be required to undergo further individual environmental review and analysis at the project-level, in accordance with CEQA regulations, and implement mitigation measures to reduce any significant environmental impacts.

The 2025 SSMP outlines the need for sewer infrastructure within the City, provides a framework for locating these facilities, and identifies near-term, mid-term, and long-term projects. As a policy document, the 2025 SSMP does not authorize any physical development or improvements; rather, it is intended to guide the future development of infrastructure and improvement projects within Chico. In accordance with Section 15168(c)(1) of the *State CEQA Guidelines*, this IS/ND evaluates program-level actions that describe planned sewer facilities and programs, with a focus on the Project's consistency with adopted City plans, goals, objectives, and standards. Any future physical improvements requiring discretionary approval would undergo separate environmental review on a project-specific basis, in compliance with CEQA and the *State CEQA Guidelines*. The 2025 SSMP is available on the City of Chico's website: https://chico.ca.us/Departments/Public-Works/SewerStorm-Drain-Engineering/Sanitary-Sewer-Master-Plan-Update/index.html

2.4 PUBLIC REVIEW OF THE INITIAL STUDY

The IS and a Notice of Intent to adopt an ND will be distributed to responsible and trustee agencies, other affected agencies, and other parties for a 30-day public review period. Public comments must be provided in writing to the City. Comments regarding this IS/ND must be submitted in written form and should be addressed to:

Tracy Bettencourt, Senior Planner
City of Chico
Public Works Engineering Department
P.O. Box 3420
Chico, California 95927
(530) 879-6903
tracy.bettencourt@chicoca.gov

After the 30-day public review period, comments raised during the public review period will be considered and addressed prior to adoption of the ND by the City.

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3.0 PROJECT DESCRIPTION

The following describes the proposed Project, which is the subject of this IS/ND and is prepared pursuant to CEQA. The City aims to update its 2013 Sanitary Sewer Master Plan to assess jurisdictional sewer needs and ascertain infrastructure needs over the next 10 years. The update seeks to propose improvements that address existing and future deficiencies necessary to support build out per the Chico 2030 General Plan.

3.1 PROJECT LOCATION

Chico is located in Butte County, in the Northern Sacramento Valley of California. The City is approximately 90 miles northeast of Sacramento and approximately 72 miles southeast of Redding, California. **Figure 3-1, Regional Location** (figures are provided at the end of each chapter), depicts the City's location within the northern California region. Two major highways, State Routes (SR) 32 and 99, facilitate access to the area. SR-32 connects the City to Glenn and Plumas counties to the west and east, respectively, whereas SR-99 connects residents to Tehama and Sutter counties to the north and south, respectively.

The centroid of the Project area is 39° 43' 46" 56" N and -121° 50' 18' 99" W.

3.1.1 Land Use Designation

The City's 2030 General Plan Land Use Element is a crucial resource in determining the amount of wastewater generation within Chico, as the type of land use would affect the volume and characteristics of wastewater generation. The City maintains a database identifying which specific parcels are connected to the sewer system and utilizes land use in these parcels to estimate wastewater production for both existing and build-out scenarios. According to the City's General Plan Update Draft EIR and the City's database, land uses connected to the City sewer system include Open Space, Single-Family Residential (SFR), Multi-Family Residential (MFR), Commercial, Manufacturing/Warehousing, Mixed-Use, Parks and Open Space, Privately Owned Common Area, Public/Quasi Public Services, and Surface Water and Drainage. Within these parcels, the City's Community Development Department identified specific known developments that are currently planned to connect to the City's sanitary sewer system. These known developments are expected to consist of, but are not limited to, "2,056 SFR units, 1,618 MFR units, and 6.92 acres of nonresidential area,"[1] as more acres of various land uses that exist within the SOI. **Figure 3-2, Parcels Connected to the Sanitary Sewer System,** depicts the locations of the areas described above.

In addition to the land uses above, the City's 2030 General Plan identified four distinct Special Planning Areas (SPAs) with defined assumptions for use and therefore wastewater production. **Figure 3-3, Special Planning Areas,** depicts these SPAs, including Barber Yard, Stonegate, and South Entler within the City's limits, and North Chico, and Honey Run/Doe Mill within the City's SOI. In 2024, the Bell Muir SPA was dissolved, and the Bell Muir area was re-zoned as Low Density Residential (R1).

[1] City of Chico. 2024. *Draft Sanitary Sewer Master Plan Update*. September. pp. 4-9.

The City's 2030 General Plan Land Use Element was also used to identify wastewater flows for unconnected parcels that will use the sewer system in build out conditions, as well as locations with Accessory Dwelling Units (ADUs) that may increase wastewater flows. Additionally, projections for future development of ADUs were factored into the build-out scenario wastewater flow projections.

3.1.2 Zoning Designation

Zoning regulations and designations play an important role in determining appropriate sewer system improvements and modifications for the City, as a type of zoning designation would affect wastewater generation and utility characteristics in different land use areas. Zoning requirements relating to lot size density, setbacks, soil and terrain considerations, and other aspects can help determine where improved sewer facilities are needed.

According to the City's 2023 Zoning/Pre-Zoning Map, zoning designations connected to the City's sewer system include Commercial, Manufacturing, Residential, Public Facilities, and Open Space designations. These designations include Airport Commercial (AC), Airport Manufacturing (AM), Airport Public Facilities (AP), Light Manufacturing (ML), Industrial Office Mixed-Use (IOMU), Office Residential (OR), Office Commercial (OC), Neighborhood Commercial (CN), Community Commercial (CC), Downtown South (DS), Downtown North (DN), Regional Commercial (CR), Services Commercial (CS), Low Density Residential (R1), Medium Density Residential (R2), Medium-High Density Residential (R3), High Density Residential (R4), Residential Mixed Use (RMU), Suburban Residential (RS-20/RS-1/RS-2), Low Density Residential (R1-10), Public/Quasi Public Facilities (PQ), Primary Open Space (OS1), Traditional Mixed-Use (TND), and Secondary Open Space (OS2).

Similar to the City's 2030 General Plan Land Use Element, four SPAs are identified in the City's zoning map. However, the existing sewer system only serves one, Barber Yard. Zoning designations relating to the City's sewer system were used to help identify areas for improvements and proposed extensions to the sewer system.

3.1.3 Environmental Setting

3.1.3.1 Regional Setting

The region is situated in Northern California, bordered by Tehama County to the north, Plumas County to the northeast, Plumas County to the east, Glenn County to the west, and Sutter and Yuba Counties to the south. Butte County encompasses about 1,677 square miles and includes diverse landscapes such as the Sacramento Valley, Sierra Nevada foothills, and rugged mountainous terrain to the east. The region features a mix of flat valley areas, rolling hills, and mountainous landscapes. The Sacramento Valley, which forms the western part of Butte County, is primarily agricultural and urbanized. As one moves eastward, the terrain rises into the Sierra Nevada foothills, offering forested areas and recreational opportunities. The region features a mix of urban, agricultural, and natural land uses. Chico serves as the largest urban center, with the City of Oroville and the Town of Paradise nearby. Agriculture is a significant part of the local economy, with crops such as almonds, walnuts, rice, and citrus being prevalent. The County also includes vast areas of forest and protected lands.

3.1.3.2 Local Setting

Chico covers approximately 33 square miles and has a population of around 107,394. The urban layout features parks, recreational facilities, and preserved natural areas, such as Bidwell Park. The City relies on groundwater and has implemented various water conservation measures to manage its water supply sustainably. The nearby Sacramento River is a crucial waterway for ecological health and recreational activities. Other waterways include Big Chico Creek, Little Chico Creek, Lindo Channel, Comanche Creek, and Sycamore Creek.

Chico is characterized as a vibrant regional center that offers diverse opportunities for business, recreation, education, shopping, employment, and cultural activities. The City is home to California State University, Chico (CSUC), which significantly contributes to the community's dynamic residential landscape and brings both students and employees to the City. Both low-density and high-density residential developments are located within Chico, as well as several open space and recreational areas, including parks, creeks, and golf courses.

The local ecology includes various habitats that support diverse plant and animal species. Efforts to protect sensitive species and habitats are ongoing, particularly in areas near waterways and natural preserves. The City also has a rich cultural history, including several historical landmarks, sites of interest, and significant indigenous heritage that are a key part of the local community.

The Project area is characterized by a Mediterranean climate with warm, dry summers and wet, mild winters with average summer temperatures that can exceed 90 degrees Fahrenheit (°F), while winters typically see temperatures ranging from the low 30s to mid-50s°F. Most of the Project area is relatively flat, excluding the eastern portion of the City, which is slightly elevated. The existing slope goes from east to west, from the Sierra Nevada Mountains towards the Sacramento River. Within the City's SOI, elevations range from 132 to 1,666 feet above mean sea level (amsl).

3.2 PROJECT BACKGROUND AND PURPOSE

The City was founded in 1860 and incorporated in 1872. In 2023, the City's SOI was estimated to be at 39.5 square miles with a population of 107,394. The City's wastewater collection system currently consists of gravity mains, manholes, force mains, and lift stations, all of which convey flows to the Water Pollution Control Plant (WPCP) located on Chico River Road. The current system consists of approximately 283 miles of gravity sewer ranging from 4 inches to 39 inches in diameter, 36 lift stations (including private stations), and approximately 4.9 miles of force mains ranging from 2 to 12 inches in diameter.

The City collects wastewater from residential, commercial, institutional, and industrial customers within its service area. In its existing condition, the City's system had an average dry-season wastewater flow (ADWF) of 6.39 million gallons per day (mgd), and a peak wet-weather wastewater flow (PWWF) of 22.26 mgd, with a peaking factor of 3.49. In a build-out scenario, the City finds that ADWF and PWWF would increase while peaking factors would decrease, consistent with the previous Sanitary Sewer Master Plan.

The City's existing and build-out collection system was examined under PWWF conditions to identify capacity deficiencies. The existing system was found to have sufficient capacity to convey the

current PWWF without exceeding the established flow-depth criterion, apart from one site that would require an improvement to mitigate hydraulic capacity deficiencies. Additionally, locations of proposed improvements recommended to mitigate capacity deficiencies in a build-out scenario were identified.

3.2.1 Flow Monitoring Program and Historic Wastewater Flows

A temporary flow monitoring program (FMP) was conducted in the Project area for a period of approximately 3 months from December 9, 2022, through February 22, 2023. Fifteen open-channel flowmeters were installed in select locations to model critical areas and subareas within the sewer system. The data recovered from the flowmeters were aggregated into 15-minute increments, the results of which were intended to assist in the development of design flow criteria, to correlate actual collection system flows to the hydraulic model predicted flows, and to form the foundations of the calculations of the projected wastewater flows. FMP data were also used to calibrate the collection system hydraulic model for dry- and wet-weather water flows, and to help identify deficiencies within the system. Additionally, rainfall data were captured through seven rain gauges located throughout Chico.

In addition to the analysis above, the City reviewed historical influent flow data at the WPCP from 2017 to 2022 to establish wastewater flow criteria. During that time, the average annual flow (AAF) ranged from 6.0 mgd in 2018 to 7.30 mgd in 2019, with an overall average of 6.35 mgd. The ADWF ranged from 6.0 mgd in 2022 to 7.72 mgd in 2019, with an overall average of 6.38 mgd.

These data were utilized to inform wastewater flow projections for the project, which are described in further detail below.

3.2.2 Collection System Facilities and Hydraulic Model

Approximately 60 percent of the City's existing wastewater collection system was constructed from 1980 to 2023, with the remainder having been constructed from 1903 to 1970. Approximately 8.8 miles of gravity mains constructed in 1903 are still in service but are likely to be in poor condition, creating vulnerabilities to groundwater and system deficiencies. Multiple areas throughout Chico contain gravity pipes that are located near rivers, creeks, and ponds. These locations have elevated ground water tables, which can lead to groundwater infiltration (GWI). GWI is most common during and after significant rainfall events. In areas where the sewer system crosses Big Chico Creek and Little Chico Creek, siphons are used to traverse under the creek beds.

3.2.3 Existing Lift Station Conditions

The City's collection system consists of 36 lift stations, 18 of which are owned and operated by the City. A Lift Station Assessment was conducted in May 2024, measuring the probability of failure (POF) using any of four failure modes (capacity, level of service, physical mortality, and efficiency); the consequence of failure (COF), including direct costs and indirect costs; and the relative severity of an unfavorable event (risk) for all 18 City-operated lift stations.

POF was measured through field evaluation of age and physical condition and desktop evaluation in the event that field evaluation could not occur. COF represented the financial, social, and

environmental impacts that could occur if a system were to fail. Financial evaluation criteria included unintended costs and operational impacts; social evaluation criteria included health, safety, and reputation; and environmental evaluation criteria included compliance. Evaluation of risk combined each lift station's POF and COF to determine whether the existing facility was at the highest or lowest risk of failure to provide an acceptable level of service.

The risk evaluation results found 11 assets to be at very low risk, 139 assets to be at low risk, 18 assets to be at medium risk, and 2 assets to be at high risk, with no assets with a risk score of 5, representing extreme risk. The two assets at high risk include a pump control at the Northwest Lift Station and a bubbler unit and compressor at the Chico Regional Airport (CRA) lift station. Both CRA and Chico Municipal Airport (CMA) are used synonymously to refer to this lift station and the existing airport, which was renamed from Chico Municipal Airport to Chico Regional Airport in 2022.[2] Both assets have become obsolete, requiring improvements. This analysis helped the City identify risk mitigation strategies for implementation in future projects.

3.3 PROPOSED PROJECT

The Project area encompasses the region serviced by the City's sanitary sewer collection system. The study boundary is defined by the City's adopted SOI, as detailed in the 2030 General Plan. **Figure 3-4, Project Area and Sphere of Influence,** illustrates the City's SOI to which the 2025 SSMP would apply.

3.3.1 Wastewater Flow Projections

Flow projections for the City's sewer service area are based on observations of existing land use, existing ADWF, known development ADWF, SPA/Master Plan Area ADWF, other unconnected area ADWF, and ADUs. Existing ADWF is estimated to be approximately 6.38 mgd. Planned development projects are expected to contribute roughly 0.35 mgd for SFR units and 0.18 mgd for MFR units in a build-out scenario, respectively, while nonresidential known developments are projected to contribute roughly 0.08 mgd. Together, the four SPAs are expected to contribute approximately 1.56 mgd in a build-out scenario, other unconnected areas are expected to contribute 5.19 mgd of flow at build out and ADUs are expected to contribute 0.088 mgd at build out. This accounts for a total expected additional contribution of approximately 13.74 mgd in a build-out scenario at the end of the 10-year planning period or is designated in the Chico 2030 General Plan.

3.3.2 Lift Station Recommendations

Results of the City's Lift Station Assessment revealed risk scores for 18 lift stations owned and operated by the City, in order to inform City decision-making regarding implementation of mitigation strategies such as implementation of preventative maintenance schedules tailored to each lift station asset or investing in redundancy measures for highest risk assets. While the Project does not intend to repair or replace all assets at their planned reinvestment years, the risk analysis

[2] City of Chico. 2022. *City Council Agenda Report. Consideration of Renaming the Airport.* November 11. Website: https://chico-ca.granicus.com/MetaViewer.php?view_id=2&clip_id=1088&meta_id=83580 (accessed January 2025).

can be used to support City-decision-making processes regarding prioritization for rehabilitation and replacement (R&R).

The Project intends to allow the City to focus on high-risk assets by allocating budget for rehabilitation and repair to assets with higher risk scores, effectively preventing the most damaging and likely failures first. The Project would therefore allow the City to prioritize projects that abandon lift stations with high-risk scores, including the CRA, Northwest, Tom Polk, and East Lassen Lift Stations. These Lift Stations are included as improvement projects within the Project, excluding the Tom Polk lift station, which has a relatively low COF. Details on these improvement projects are described below in further detail.

3.3.3 Capacity Evaluation and Proposed Improvements

The Project intends to identify and mitigate deficiencies within the City's wastewater collection system, proposing improvement projects for both existing and build-out scenarios.

3.3.3.1 Gravity Collection Systems

Through the analyses described above, capacity deficiencies within the wastewater collection system were identified at locations that exceeded maximum flow-depth criteria under PWWF conditions. These criteria require the hydraulic grade line not to exceed the elevation of halfway between the manhole rim and pipe crown or come within 5 feet of the manhole rim, whichever is more conservative. Sewers that do not meet these requirements can create bottlenecks that lead to sanitary sewer overflows. Capacity deficiency locations were identified and modeled to determine necessary upsizing in both the existing and build-out scenarios.

One location was identified as deficient under existing PWWF conditions, while several more locations become deficient under build-out PWWF conditions. In the system's existing state, a location near Humboldt Avenue and Little Chico Creek revealed a section of downstream gravity pipe that is subject to surcharge during PWWF conditions. Under build-out conditions, approximately 22 locations across the Project area would experience deficiencies under PWWF conditions.

3.3.3.2 Lift Stations

In addition to the Lift Station Conditions Assessment detailed above, the City evaluated existing lift stations to determine adequate capacity to convey PWWFs in both existing and build-out scenarios using firm capacity criterion. These criteria compare lift station modeled peak flows for 10-year 24-hour rainfall events (PWWF) with the capacity of each lift station in the event that its largest pump was out of service.

One location, the Oates Lift Station, was identified with inadequate capacity in the existing PWWF scenario, which was magnified in the build-out scenario. In order to mitigate this deficiency, the Project intends to implement the proposed flow monitoring program, included in the Capital Improvement Plan. In the build-out scenario, no additional lift stations were identified as inadequate. However, the Project intends to abandon four lift stations through gravity pipe diversion projects.

3.3.3.3 Identified 2025 Sanitary Sewer Master Plan Improvement Projects

The Project would create improvement projects in order to relieve existing and build-out scenario deficiencies under PWWF conditions to ensure that sufficient capacity is available for future use. In many deficiency scenarios, improvements were made by upsizing a pipe along the existing alignment, but some deficiencies required more robust involvement. New gravity sewer alignments are also proposed to reduce the need for additional lift stations, which serve future SFR and MFR developments. Additionally, many future improvement projects would be designed to extend service to known developments, primarily SPAs. Projects were prioritized based on being triggered through either capacity deficiencies or through attachments to future known developments. An Equivalent Dwelling Unit (EDU) Trigger Analysis was also completed in order to determine the number of additional EDUs the collection system could handle without triggering capacity deficiency. While some of the identified projects are located outside the City limits, all of identified the projects are located within the City's SOI and are therefore subject to City regulations.

Existing System Improvements. Under existing conditions, an identified project to upsize an existing 590-foot section of gravity sewer located on Humboldt Avenue. This Project would increase the existing 15-inch diameter pipe to an upsized pipe at 21 inches in diameter.

Build-Out System Improvements. Under the build-out scenario, twenty-four specific projects were identified and include the following as identified in **Figure 3-5, Identified Build-out Projects**:

- The Bell Muir lift station would be installed at the intersection of Rodeo Avenue and Nord Avenue to provide service to the Bell Muir area.

- The Eaton Road trunk sewer would provide a gravity pipe bypass to the CRA lift station and alleviate build-out deficiencies downstream of the CRA lift station force main by adding a 21-inch gravity line to the intersection of Eaton Road and Burnap Avenue.

- The Cohasset Road trunk sewer would relieve capacities observed upstream of the CRA lift station by upsizing an existing 12-inch-diameter gravity pipe to approximately 2,790 feet of an 18-inch gravity pipe south of Boeing Avenue along Cohasset Road.

- The 11th Avenue trunk sewer would allow for bypass and abandonment of the 11th Avenue lift station by installing approximately 1,740 feet of an 8-inch gravity pipe southwest along 11th Avenue.

- The Silverbell Avenue trunk sewer would allow for bypass and abandonment of the East Lassen lift station by installing approximately 6,750 feet of a 15-inch gravity pipe running northeast along Lassen Avenue, northwest along Joshua Tree Road, southwest along Waterford Drive, and northwest along Silverbell Road.

- The Humboldt Avenue trunk sewer would alleviate deficiencies in the 15-inch gravity sewer on Humboldt Avenue by upsizing 11,850 feet of gravity sewer to 18-inch-diameter pipe.

- The California Lake Park sewer would alleviate deficiencies near California Lake Park by upsizing 1,000 feet of existing 10-inch gravity pipe to 12-inch gravity pipe.
- The 23rd Street sewer would alleviate upstream deficiencies by replacing an existing 15-inch gravity pipe with a 24-inch gravity pipe.
- The Northwest trunk sewer would alleviate capacity deficiencies along East Avenue and Nord Avenue by bypassing the Northwest lift station with a new 31,015-foot-long trunk sewer with pipe diameters ranging from 36 to 42 inches.
- The Bell Muir trunk sewer would extend service to the Bell Muir area by conveying approximately 6,800 feet of gravity sewer, including 10-, 12-, and 15-inch gravity pipelines with lengths of 2,520, 1,620, and 2,650 feet, respectively.
- The North Chico Trunk Sewer would extend service to the North Chico SPA by upsizing 30 feet of 20-inch-diameter pipe to a 21-inch pipe and installing approximately 17,900 feet of gravity pipe ranging from 8 to 18 inches in diameter.
- The Southeast Trunk Sewer would extend service to the South Entler SPA by installing 4,650 feet of 12-inch-diameter gravity sewer and 7,900 feet of 24-inch-diameter gravity sewer.
- The Honey Run Trunk Sewer would extend service to the Stonegate SPA and Honey Run/Doe Mill SPA with 17,060 feet of gravity sewer ranging from 8 to 18 inches in diameter.
- The Doe Mill Trunk Sewer would extend service to the Honey Run/Doe Mill SPA through approximately 5,000 feet of 15-inch-diameter gravity sewer.
- The Barber Yard Trunk Sewer would extend service to the Barber Yard SPA through 3,275 feet of 10-inch diameter gravity sewer.
- The Mansion Park Trunk Sewer would alleviate capacity deficiencies by replacing 3,910 feet of existing 10-inch gravity pipe with 12- and 15-inch gravity pipes.
- The Filbert Trunk Sewer would alleviate capacity deficiencies by replacing 1,365 feet of 10-inch gravity pipe with 12-inch gravity pipe.
- The Country Drive Trunk Sewer would alleviate capacity deficiencies by replacing existing 12- and 15-inch pipes with 15- and 18-inch pipes.
- The Southeast Bell Muir Trunk Sewer would extend service to the Bell Muir area by installing approximately 9,083 feet of 8-inch gravity pipe.
- The Bell Muir Force Main would convey flow from the Bell Muir Lift Station to an existing trunk through 1,721 feet of 4-inch force main pipe.

- The Bruce Road Trunk Sewer would extend service to the Stonegate area with 2,668 feet of 8-inch-diameter gravity pipe.
- The Native Oak Drive would extend service to the SFR development area known as Oak Valley by installing 3,414 feet of 8-inch-diameter gravity pipe.
- The Dayton Road Trunk Sewer would alleviate capacity deficiencies by replacing approximately 2,667 feet of existing 18- and 33-inch gravity pipes with larger-diameter pipes.
- The Downtown Complete Streets Rehabilitation and Replacement would replace existing wastewater pipes under 8 inches in diameter and built before 1960 with 8-inch pipes.

3.3.3.4 Schedule and Construction

Construction of the proposed improvements would span 10 years, from 2025 to 2035, with an estimated total construction cost of approximately $100,000,000.

Construction materials would be standard for wastewater and sewer projects, including gravity pipeline, gravity main casing, force main materials, hookups to new developments, and other wastewater system upgrades.

3.3.3.5 Construction Equipment

Construction equipment for the Project would also be standard for wastewater and sewer projects, requiring trenchers, excavators, graders, and pavers, among other various construction equipment.

3.3.3.6 Operations and Maintenance

The City maintains the sanitary sewer and storm drain collection system through three basic programs: zone maintenance, television camera inspection, and regular interval maintenance. All operational and maintenance activities are in accordance with the City's Sanitary System Management Plan (SSMP), which was adopted in 2013 in compliance with the State Water Resources Control Board (SWRCB).

The City's Public Works Operations and Maintenance Department provides zone maintenance services, including cleaning using vacuum jet rodder trucks, inspection of new and old pipelines, and routine cleaning and checking of known problem areas. Additional operational and maintenance services include the evaluation of asset conditions, implementation of measures to mitigate odors, response to sewer system failures with established protocols, continuous monitoring of sewer infrastructure, and maintenance of current record and reports detailing system performance. The City's operations and maintenance procedures ensure the functionality of both older sections and new development projects.

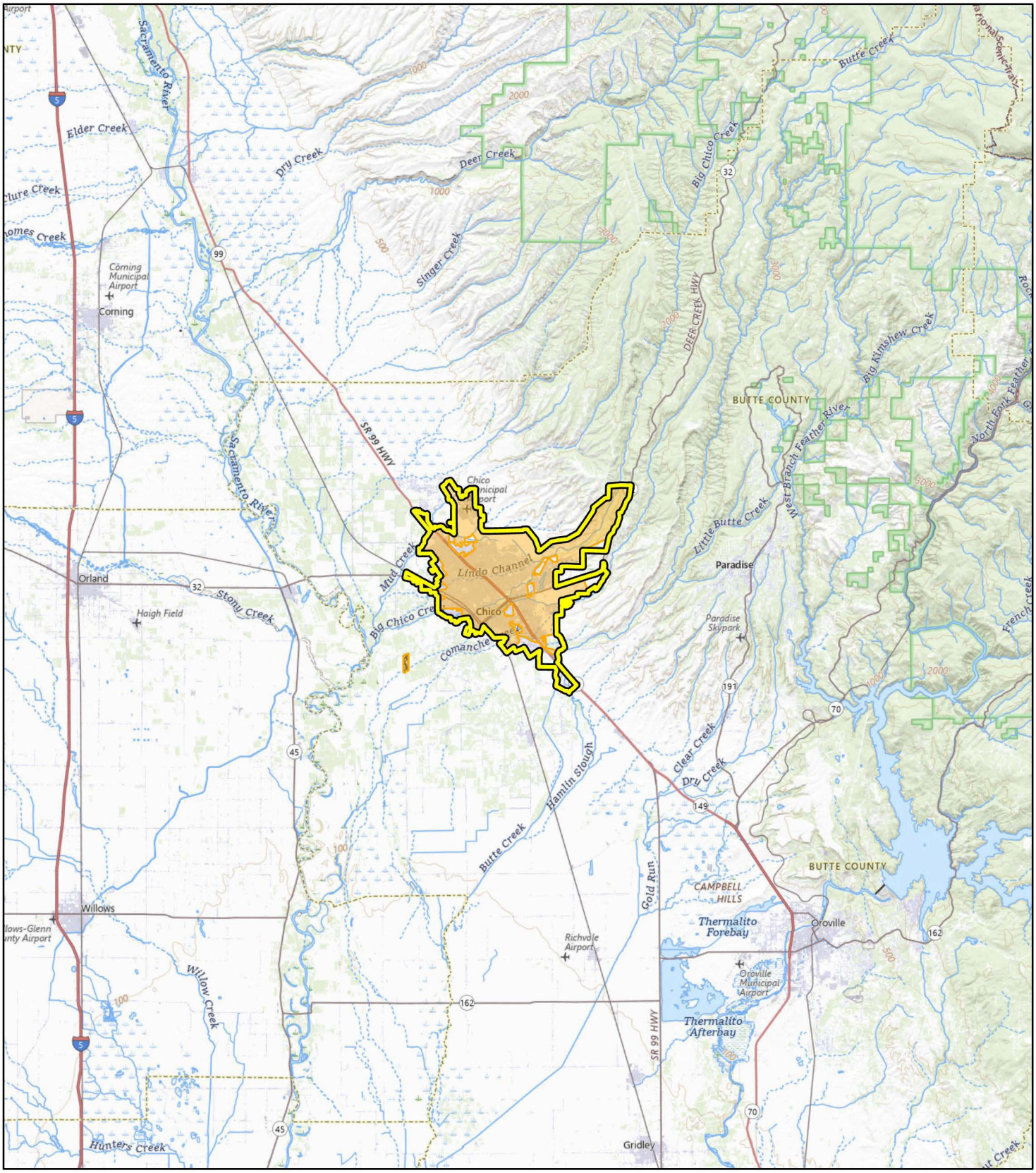
3.4 OTHER PUBLIC AGENCIES WHOSE APPROVAL MAY BE REQUIRED

Role	Description
Lead Agency	The City of Chico is the lead agency with principal responsibility for approving or carrying out the projects identified in the 2025 SSMP.
Responsible Agencies	Additional agencies with approval authority over one or more aspects of the Project may include LAFCo.
Trustee Agencies	State agencies with general management authority over specified natural resources of the State when the resources may occur within the jurisdictional area include the State Water Resources Control Board, the Central Valley Regional Water Quality Control Board, the California Department of Fish and Wildlife, and/or the Central Valley Flood Protection Board.
Other Interested Agencies	Additional agencies that may be interested in projects that derive from the 2025 SSMP Services Plan and their impacts, although they would have no authority over approval or adoption of this document, may include the Butte County Air Quality Management District.

3.5 CONSULTATION WITH CALIFORNIA NATIVE AMERICAN TRIBES

PRC Section 21080.3.1, et seq. (codification of Assembly Bill [AB] 52, 2013-14) requires that a lead agency, within 14 days of determining that it would undertake a project, must notify in writing any California Native American tribe traditionally and culturally affiliated with the geographic area of the Project if that tribe has previously requested notification about projects in that geographic area. The notice must briefly describe the Project and inquire whether the tribe wishes to initiate or request formal consultation. Tribes have 60 days from consultation, which then continues until the parties come to an agreement regarding necessary mitigation or agree that no mitigation is needed, or one or both parties determine that negotiation occurred in good faith but no agreement would be made.

The City did not receive written correspondence from local tribes pursuant to PRC Section 21080.3.1 requesting notification of proposed projects. Further discussion regarding Cultural and Tribal Resources can be found in Chapter 4.0, Sections 4.6 and 4.19, respectively.



LSA

City of Chico Sphere of Influence

City Boundary

FIGURE 3-1

N

0 3 6

Miles

SOURCE: USGS The National Map (2018)

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Chico Sewer Master Plan Update

Regional Location

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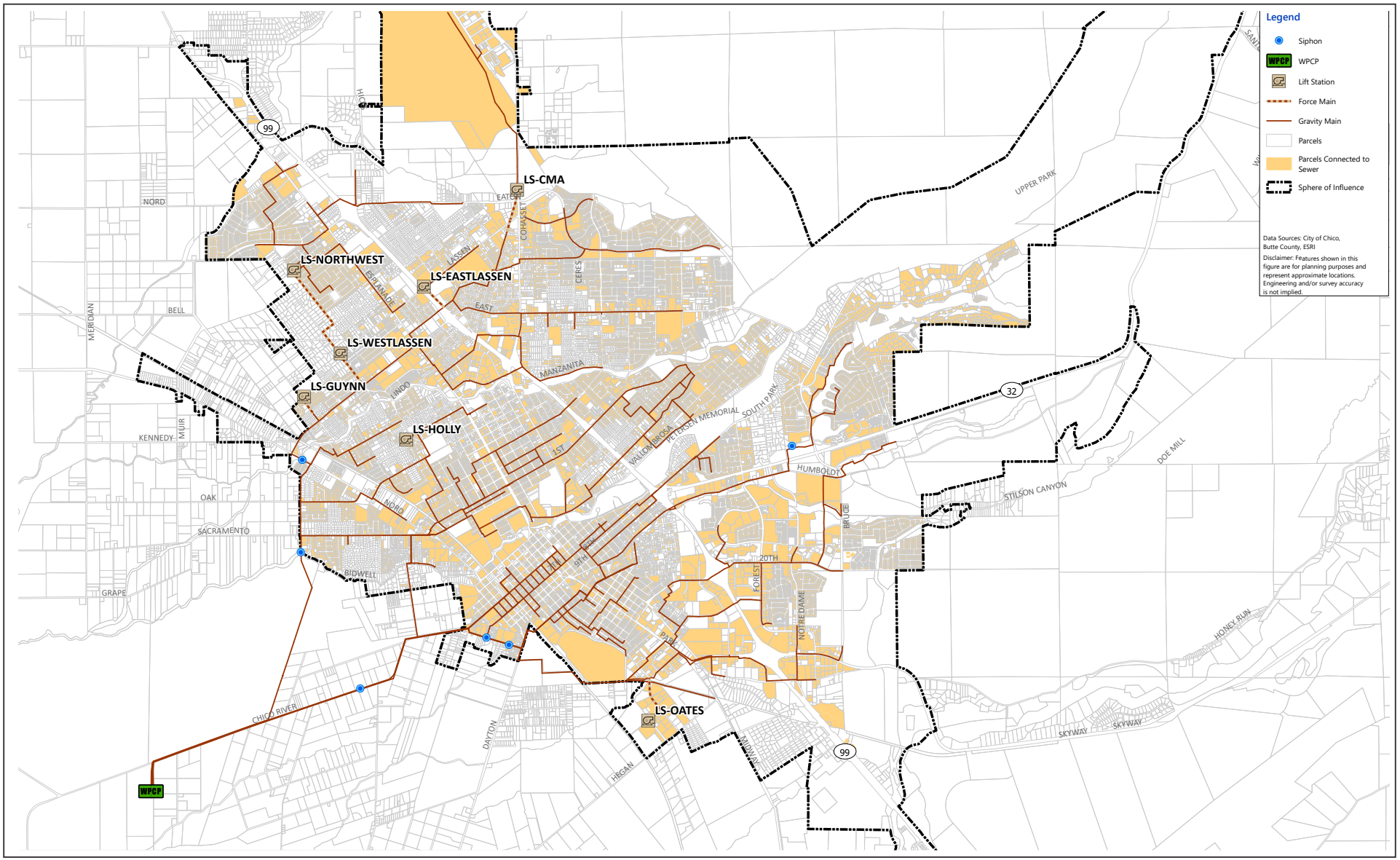

LSA

FIGURE 3-2

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0 3750 7200

FEET

SOURCE: City of Chico

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Chico Sewer Master Plan Update

Parcels Connected to the Sanitary Sewer System

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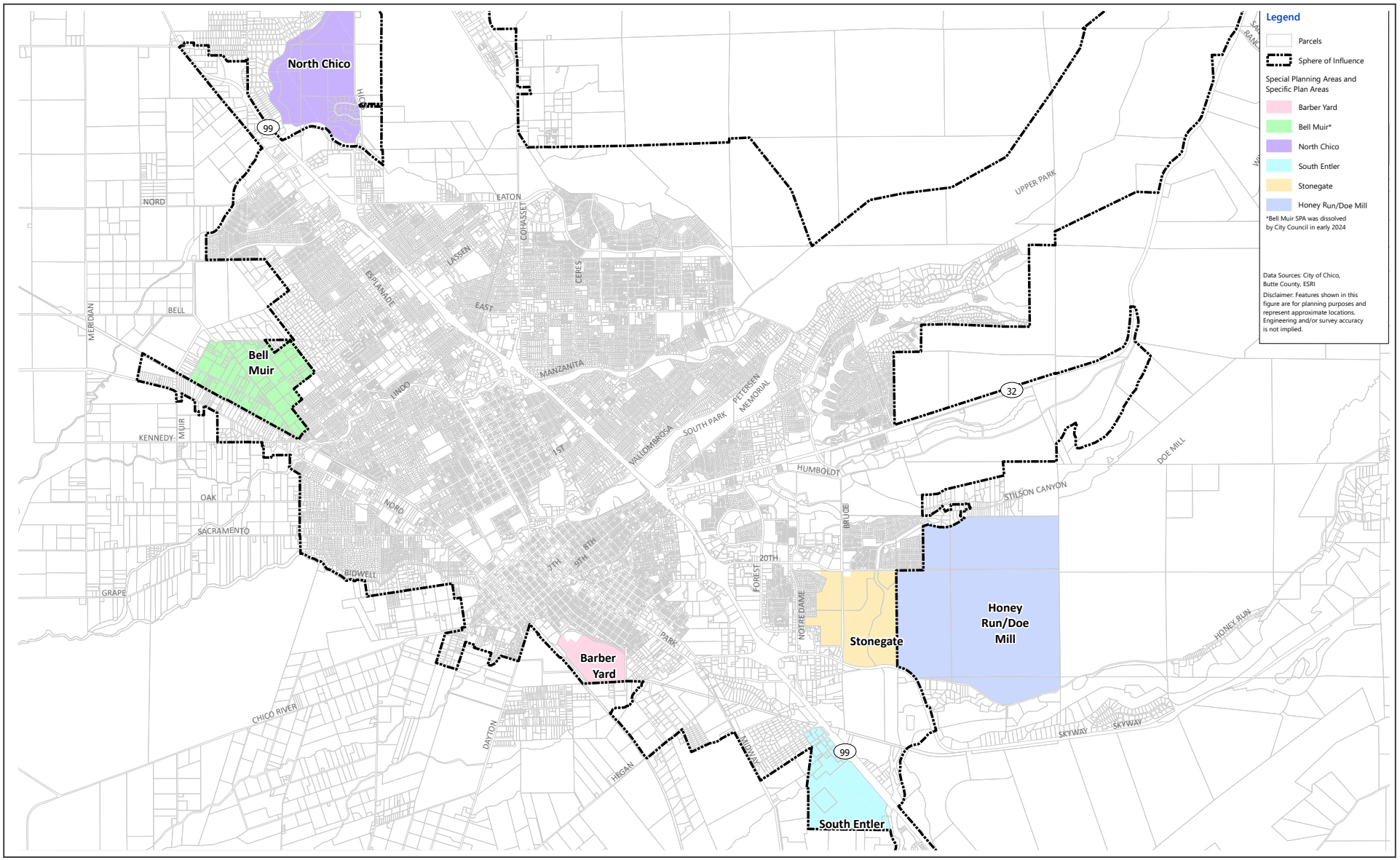

LSA

FIGURE 3-3

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SOURCE: City of Chico

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Chico Sewer Master Plan Update

Special Planning Areas

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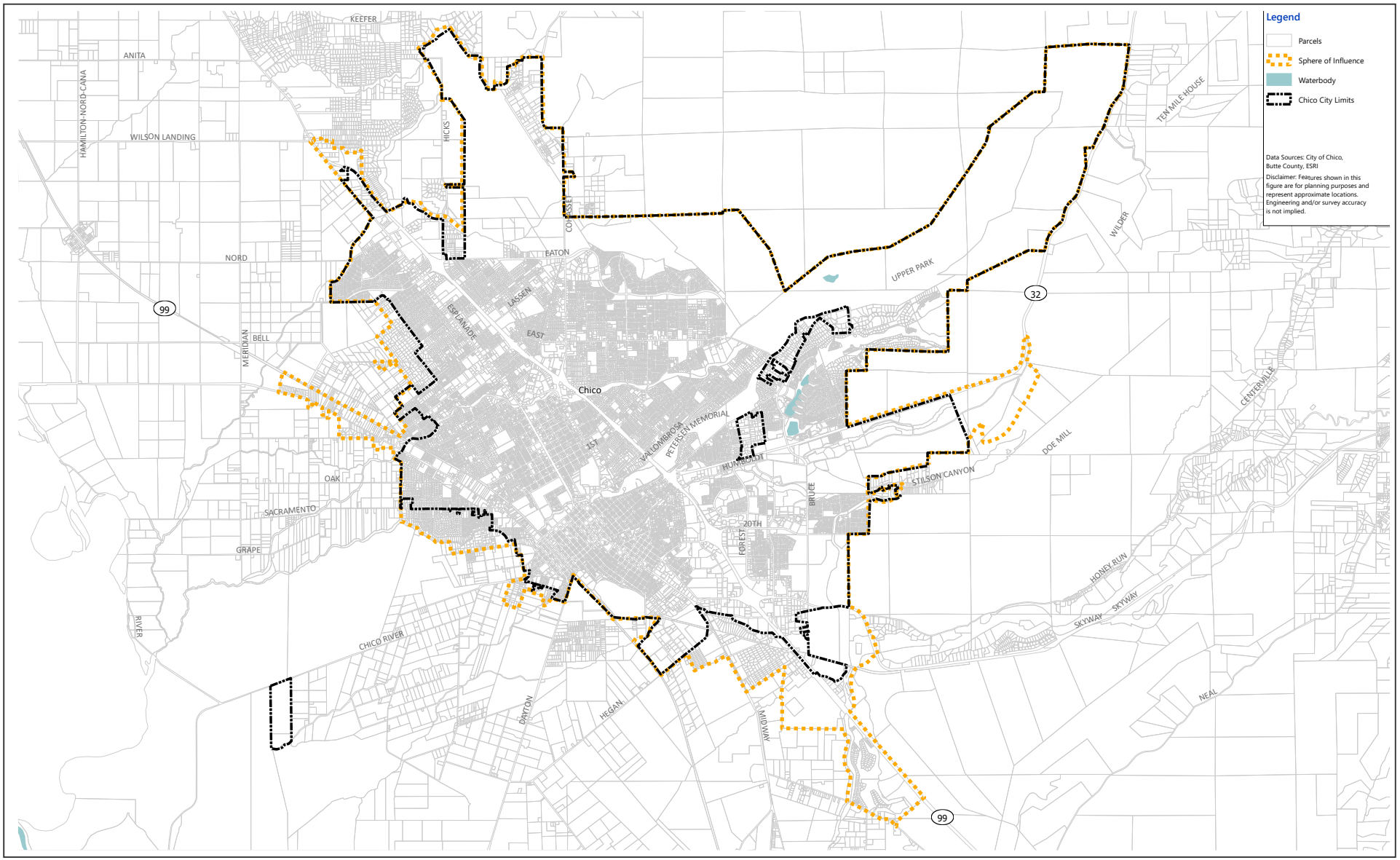

LSA

FIGURE 3-4

SOURCE: City of Chico

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Chico Sewer Master Plan Update

Project Area and Sphere of Influence

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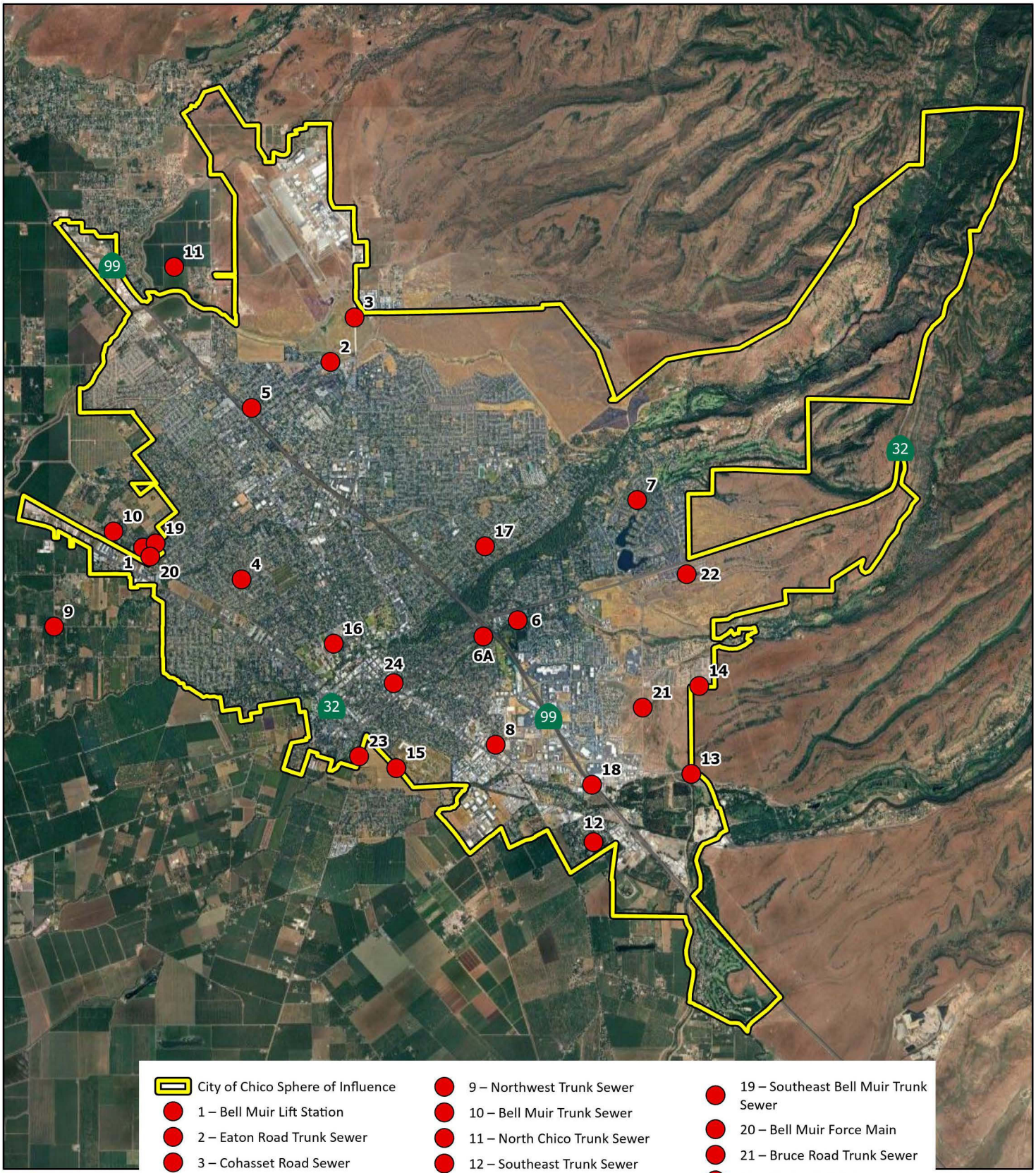

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FIGURE 3-5

Chico Sewer Master Plan Update

Identified Build-out Projects

SOURCE: Google Maps (2024)

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4.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below could be potentially affected by this project, but, due to the inclusion of specific mitigation measures, will result in impacts that are a "Less Than Significant with Mitigation Incorporated," as indicated by the environmental checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Energy
☐ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

4.1 DETERMINATION

On the basis of this initial evaluation:

☒ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "Potentially Significant Impact" or "Potentially Significant Unless Mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Tracy R Bettencourt — 2/28/2025

Signature — Date

Tracy R Bettencourt – MPA, AICP, Senior Planner

Printed Name (for Brendan Vieg, Community Development

4.2 AESTHETICS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☒	☐
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

4.2.1 Baseline Conditions

The projects that may result for the adoption of the 2025 SSMP are generally located underground and within the City and its existing SOI. Chico is situated in the northern Sacramento Valley and is characterized by a blend of urban, suburban, and rural landscapes. The City is predominantly developed with a mix of residential, commercial, and industrial areas. Key features of Chico's visual environment include its historical downtown, which is marked by a mix of older, brick buildings and newer commercial development, as well as the extensive tree canopy that provides a green, leafy aesthetic throughout the City. Chico is home to Bidwell Park, which is one of the largest urban parks in the United States. It spans over 3,600 acres and offers a diverse range of visual environments, from open meadows to dense wooded areas, and provides a significant visual and recreational amenity to both residents and visitors.

Chico is also known for its relatively low-rise development, with the majority of buildings standing no higher than three to four stories. The surrounding rural landscape consists of agricultural lands, open space, and rolling hills, which provide scenic backdrops to the urban core. The Sutter Buttes, located to the south of the City, are visible from various parts of Chico and provide a unique geological feature that contributes to the area's scenic value. Additionally, Big Chico Creek, which runs east to west throughout Bidwell Park, provides further visual interest with its riparian landscapes and associated wildlife habitats.

In terms of lighting, urban areas tend to have standard roadway and safety lighting, commercial and residential buildings, and headlights from motor vehicles, but Chico also has areas where dark skies and low-light pollution are a feature, especially in suburban and rural parts of the City.

It is important to note the absence of significant scenic highways, vistas, or protected visual resources within the immediate vicinity of most development sites in the City. However, areas adjacent to Bidwell Park, Big Chico Creek, and certain rural landscapes outside the urban core may

be considered visually sensitive, and changes to the landscape in these areas may result in minor aesthetic impacts.

4.2.2 Thresholds

4.2.2.1 City of Chico General Plan 2030

Community Design Element.

- Goal CD -1: Strengthen Chico's image and sense of place by reinforcing the desired form and character of the community.
    - Policy CD 1.1 (Natural Features and Cultural Resources): Reinforce the City's positive and distinctive image by recognizing and enhancing the natural features of the City and protecting cultural and historic resources.
- Goal CD -2: Enhance edges and corridors that represent physical boundaries, transitions and connections throughout the community.
    - Policy CD 2.3 (Corridor Improvements): Improve corridors traversing the City to enhance their aesthetics and accessibility.
    - Policy CD 2.4 (Context Sensitive Foothill Development): Protect viewsheds from foothill development, through the careful location and design of roads, buildings, lighting, landscaping, and other infrastructure.

4.2.2.2 City of Chico Municipal Code Chapter 19.18

Chapter 19.18 of the Chico Municipal Code (CMC) provides a design review process for development in the City intended to promote a visual environment of high aesthetic quality. The Chico Architectural Review Board promotes responsible architectural design that is consistent with Chico's character by enforcing the design guidelines as set forth in Chapter 19.18 of the CMC. The Architectural Review Board reviews architectural drawings or renderings, which are required to be submitted with an application for a building permit. In order to fully illustrate these guidelines, the City Design Manual contains graphic examples and explanations of the architectural review process. The design process focuses on three major areas: site design, building design, and landscape design.

4.2.2.3 City of Chico Municipal Code Section 19.60.050

Section 19.60.050 of the CMC requires that external lighting be architecturally integrated with the character of all structures, energy efficient, and shielded or recessed so that direct glare and reflections are confined, to the maximum extent feasible, within the boundaries of the site. Exterior lighting is to be directed downward and away from adjacent properties and public rights-of-way. Shielded means that the light rays are directed onto the site, and the light source, whether bulb or tube, is not visible from an adjacent property. This section of the CMC does not apply to sign illumination, traffic safety lighting, or public street lighting. Permanently installed lighting cannot blink, flash, or be of unusually high intensity or brightness. All lighting fixtures must be appropriate in scale, intensity, and height to the use they are serving.

4.2.2.4 City of Chico Municipal Code Chapter 19.66

Chapter 19.66 of the CMC provides for development standards for development within the City's foothill areas at elevations in excess of 250 feet to preserve and enhance natural topographic features and reduce grading and environmental degradation.

4.2.3 Impact Analysis

a. Would the project have a substantial effect on a scenic vista? ***(Less Than Significant Impact)***

The Project is a planning-level document that proposes future, long-term improvements to Chico's existing sanitary sewer system. Planned improvements in the Project range from maintenance of existing infrastructure to construction of new facilities, including improved lift stations and new, extended, or expanded pipelines.

The Chico General Plan 2030 does not list any scenic vistas or resources within the City or its SOI. Although there are natural visual features within the Project area such as Bidwell Park, the Greenline to the west, foothills to the east, and various creeks and waterways within the City, these features are not designated as scenic vistas. The sewer system may be connected to parcels alongside or near visual resources, but Project activities would not have impacts to those resources. Therefore, the Project would result in a **less than significant** impact to scenic vistas.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? ***(Less than Significant Impact)***

The Project is a planning-level document that proposes improvements to Chico's existing sanitary sewer system. The purpose of the Project is to improve capacity deficiencies and efficiency within the existing system. Planned improvements in the Project range from maintenance to construction of new facilities, including improved lift stations and new, extended, or expanded pipelines.

According to the California Department of Transportation (Caltrans) California State Scenic Highway System Map,[3] there are no State-designated or eligible scenic highways within the Project area. The nearest eligible scenic highway is SR-70 which runs to SR-149 near Wicks Corner, which is approximately 12 miles southeast of the Project area. The nearest State-designated scenic highway is SR-49 in Sierra County, approximately 40 miles east of the Project area.

As outlined in the2025 SSMP, as further Project specifics are identified in more detail, and prior to the implementation of Project activities, additional CEQA documentation may be needed to identify potential effects to scenic resources, including trees, rock outcroppings, or historic buildings. At this time, it is not anticipated that Project activities would result in significant impacts to scenic resources. Therefore, the Project would result in a **less than significant** impact to scenic resources.

[3] California Department of Transportation (Caltrans). 2019. California State Scenic Highway System Map. Website: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed October 29, 2024).

c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? ***(Less Than Significant Impact)***

The Project would consist of activities within both non-urbanized and urbanized areas. Within the urbanized areas of the Project, activities would be adjacent to or within a variety of General Plan land uses and zoning districts. The Project would be consistent with the General Plan uses and would comply with applicable zoning requirements.

Within non-urbanized portions of the Project, Project activities would be designed to result in a less than significant impact on trees, outcroppings, and long-distance scenic vistas through careful planning. The Project's activities would be routed to avoid or minimize disturbance to areas with significant natural features, such as mature trees or prominent rock outcroppings. Where avoidance is not possible, construction techniques such as trenchless technology (e.g., horizontal directional drilling) would be employed to minimize surface disturbance and protect the root systems of trees. Additionally, the Project designs would incorporate features to minimize visual intrusions, such as underground installation or the use of low-profile infrastructure that blends with the natural landscape, preserving long-distance scenic vistas and maintaining the aesthetic integrity of the surrounding environment.

Therefore, the Project would not conflict with applicable zoning and other regulations governing scenic quality and a **less than significant impact** would occur.

d. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? ***(Less Than Significant Impact)***

Chico is characterized by a mix of urban and rural landscapes, with a well-developed downtown and surrounding residential and commercial areas. Lighting in the City predominantly consists of streetlights, building exterior lighting, and illuminated signage. While Chico benefits from a relatively low-light-pollution environment compared to larger metropolitan areas, there are still areas, particularly in commercial districts and along major roadways, where lighting could contribute to some level of glare and visual intrusion. The City has generally maintained a focus on preserving its scenic and natural areas, including the prominent Bidwell Park and surrounding rural landscapes, which are sensitive to light pollution.

Glare, or excessive brightness that causes discomfort or visual impairment, is primarily an issue in areas with poorly designed or improperly shielded lighting fixtures. For instance, unshielded streetlights and parking lot lighting can direct light into neighboring properties or upward into the sky, leading to light trespass and environmental disruption.

The City's General Plan includes policies aimed at preserving the aesthetic quality of the built environment and minimizing light pollution and glare. These policies emphasize the protection of natural viewsheds, including the surrounding rural landscapes and Bidwell Park, and encourage the use of energy-efficient, well-shielded lighting to reduce unnecessary light spillover. The General Plan

also underscores the need for lighting that enhances safety while minimizing adverse effects on the environment and residential quality of life.

Although additional lighting sources are not anticipated as part of the 2025 SSMP, if it is determined that lighting sources are needed, the Project would be required to comply with these policies by incorporating lighting and glare management strategies into its infrastructure planning. If the Project involves new or upgraded sewer infrastructure in urban areas, the Project would follow the City's existing lighting standards, ensuring that street and facility lighting is properly shielded and oriented to prevent light pollution. Additionally, the sewer system infrastructure would be designed to minimize glare in sensitive areas, such as near residential neighborhoods, parks, or scenic corridors.

The Project would also align with relevant California Building Code (CBC) provisions related to lighting and glare. These include compliance with California Energy Commission (CEC), which requires energy-efficient outdoor lighting and may mandate the use of lighting controls (such as timers or motion sensors) to limit unnecessary illumination.

The impact of lighting and glare associated with the Project would be less than significant due to the application of appropriate design measures that comply with both State and local regulations. The incorporation of energy-efficient and well-shielded lighting solutions, such as light-emitting diode (LED) fixtures with glare-reducing shields, ensures that potential impacts on visual quality, wildlife, and neighboring properties are minimized. Additionally, the strategic use of lighting controls (e.g., motion sensors, dimmers) would prevent unnecessary illumination during off-hours, further reducing light pollution and minimizing environmental disturbance. By adhering to applicable policies, the Project would not create a new source of substantial light or glare, and **impacts would be less than significant**.

4.3 AGRICULTURE AND FORESTRY RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☒	☐

4.3.1 Baseline Conditions

Chico is primarily developed with residential, commercial, and industrial uses, while agriculture occurs outside the City limits, in Butte County. Along the western edge of the City is an established boundary known as the Greenline, which separates the urban and rural uses of the area. This area contains vast agricultural uses such as irrigated croplands, orchards, and vineyards. However, due to the predominance of agricultural operations outside the city limits, there are minimal agricultural operations within Chico itself. Some agricultural or farmable land within the City includes the Mendocino National Forest Genetic Resource and Conservation Center, which houses the Chico Seed Orchard. Parcels with agricultural or farmable land do not have an agricultural land use or zoning designation. The General Plan Land Use Map and City Zoning Map designate parcels such as the Mendocino National Forest Genetic Resource and Conservation Center as Public/Quasi-Public (PQ) or Open Space (OS1 and OS2).

4.3.2 Thresholds

4.3.2.1 California Department of Conservation Farmland Mapping and Monitoring Program

Pursuant to Government Code Section 65570, the Department of Conservation Farmland Mapping and Monitoring Program (FMMP) compiles consistent, timely, and accurate data to decision makers for use in planning for the present and future of California's agricultural land resources. The FMMP provides maps and statistical data to the public, academia, and local, State, and federal governments on the nature, location, and extent of farmland, grazing land, and urban built-up areas in the State to assist in making informed decisions for the best utilization of California's farmland. Government Code Section 65570 mandates the FMMP to biennially report to the Legislature on the

conversion of farmland and grazing land and to provide maps and data to local governments and the public. The FMMP also was directed to prepare and maintain an automated map and database system to record and report changes in the use of agricultural lands. These maps combine soil survey and current land use information from the United States Department of Agriculture (USDA) and Natural Resources Conservation Service (NRCS) to provide an inventory of agricultural resources in each county. The maps show urbanized lands and a qualitative sequence of agricultural designations. Pursuant to the FMMP, all lands within California are classified into one of seven map categories. The minimum mapping unit is generally 10 acres, except as otherwise noted.

Provided below is a description of the various map categories established by the FMMP, assessing the importance of agricultural land based on factors such as soil characteristics, climate, and water supply:

- **Prime Farmland:** The best combination of physical and chemical features and able to sustain long-term agricultural production. This land type has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.

- **Farmland of Statewide Importance:** Similar to Prime Farmland but with minor shortcomings, such as steeper slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.

- **Unique Farmland:** Lesser-quality soils used for the production of the State's leading agricultural crops. This land is usually irrigated but may include unirrigated orchards or vineyards. Land must have been cultivated at some time during the 4 years prior to the mapping date.

- **Farmland of Local Importance:** Land of importance to the local economy, as defined by each county's local advisory committee and adopted by its board of supervisors. This refers to all farmable lands in the county that do not meet the definitions of Prime, Statewide, or Unique. This includes land that is or has been used for irrigated pasture, dryland farming, confined livestock and dairy, poultry facilities, aquaculture, and grazing land.

- **Grazing Land:** This type of land is occupied with vegetation suited to grazing livestock. This category was developed in cooperation with the California Cattleman's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit is 40 acres.

- **Urban and Built-Up Land:** This type of land is occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. Common examples of land uses include residential, industrial, commercial, institutional facilities, public administrative purposes, railroad and transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures, and other developed purposes.

- **Other Land:** This type of land is not included in any other mapping category. Common examples include low-density rural developments; brush, timber wetland, and riparian area not suitable

for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development that is greater than 40 acres is mapped as Other Land.

4.3.2.2 Williamson Act

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act, is a nonmandated State program administered by counties and cities to preserve agricultural land and discourage the premature conversion of agricultural land to urban uses. The act authorizes local governments and property owners to (voluntarily) enter into contracts to commit agricultural land to specified uses for 10 or more years. Once restricted, the land is valued for taxation based on its agricultural income rather than unrestricted market value, resulting in a lower tax rate for owners. In return, the owners guarantee that these properties remain under agricultural production for an initial 10-year period. The contract is renewed automatically unless the owner files a notice of nonrenewal, thereby maintaining a constant 10-year contract. Currently, approximately 70 percent of the State's prime agricultural land is protected under this act. Prime Farmland under the Williamson Act includes land that qualifies as Class I and II in the NRCS classification of land or that qualifies for rating 80 to 100 in the Storie Index rating. Participation is on a voluntary basis by both landowners and local governments and is implemented through the establishment of agricultural preserves and the execution of Williamson Act contracts.

4.3.2.3 City of Chico Agricultural Preservation Standards

The City has Agricultural Preservation Standards as part of Section 19.64 of the CMC, which contains agricultural preservation provisions that require subdividers to disclose a property's proximity to farmland to prospective buyers and that limit the definition of a "nuisance" to exclude established farms operated according to commonly accepted farming practices.

4.3.2.4 City of Chico General Plan 2030

The following policies are included in the existing City General Plan regarding agriculture resources:

Open Space and Environment Element

- Goal OS-5: Preserve agricultural areas for the production of local food and the maintenance of Chico's rural character.
    - Policy OS-5.1 (Urban/Rural Boundary): Protect agriculture by maintaining the Greenline between urban and rural uses.
    - Policy OS-5.2 (Agricultural Resources): Minimize conflicts between urban and agricultural uses by requiring buffers or use restrictions.

4.3.3 Impact Analysis

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? ***(Less Than Significant Impact)***

According to the California Important Farmland Finder, the Project area is mostly designated as Urban and Built-Up Land, which is defined as land occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel.[4] There are few parcels within the City that are designated as Prime Farmland or Unique Farmland, including the 209-acre Mendocino National Forest Genetic Resource and Conservation Center, which also includes the Chico Seed Orchard. See **Figure 4.3-1, City of Chico Designated Farmland Areas,** for Farmland designations within the City. Honey Run Trunk Sewer and Country Drive Trunk Sewer are identified build-out projects under the 2025 SSMP that are located near areas of Prime Farmland. Honey Run Trunk Sewer is directly northeast of the Mendocino National Forest Genetic Resource and Conservation Center, and Country Drive Trunk Sewer is in the vicinity of Prime Farmland east of SR-99. The Project would not change or convert use of designated farmland or result in significant impacts to Prime Farmland. Therefore, the Project would result in a **less than significant** impact to conversion of Prime Farmland to non-agricultural use.

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract? ***(No Impact)***

According to the City General Plan Draft Environmental Impact Report (DEIR), there are no parcels subject to the Williamson Act within the City or its SOI. Additionally, the City Zoning Map does not have any agriculture-related districts or designations.[5] Therefore, the Project would not conflict with any existing zoning for agricultural use or any Williamson Act contracts, and **no impact** would occur.

c. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))? ***(No Impact)***

According to the City's General Plan Land Use Element, no land within the City is designated or zoned as forest land or timberland, or within a designated timberland production area. Therefore, the Project would not conflict with zoning of forest land, timberland, or timberland production and **no impact** would occur.

[4] California Department of Conservation (DOC). Important Farmland Mapper. Website: https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed October 2024).

[5] City of Chico Zoning Map. 2023. Website: https://chico.ca.us/documents/Departments/Community-Development/Geographic-Information-Systems/ZoningMap.pdf (accessed October 30, 2024).

d. Would the project result in the loss of forest land or conversion of forestland to non-forest use? ***(No Impact)***

As noted above, no forest land or timberland exists within the Project area. There would be no conflict with existing forest land or timberland, and there would be no loss or conversion of forest land or timberland, or timberland production. **No impact** would occur.

e. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use? ***(Less Than Significant Impact)***

According to the California Department of Conservation (DOC) Farmland Finder and the City's General Plan Land Use Element, there are areas of Prime Farmland within the City limits and in the Project area under existing conditions. **Figure 4.3-1** illustrates areas of Prime Farmland within the City and its SOI showing a few parcels that are designated as Prime Farmland, neither of which are zoned for any agricultural, timberland, forest land, or timberland production uses. Parcels designated as Prime Farmland such as the Mendocino National Forest Genetic Resource and Conservation Center is zoned PQ, and other farmland is zoned OS1 and OS2.

Construction of proposed improvements within the Project would likely not result in any changes to existing farmland or convert any applicable land to non-agricultural use or convert forest land to nonforest use. Therefore, the Project would have a **less than significant impact** on the conversion of farmland to non-agricultural use or conversion of forest land to nonforest use.

4.4 AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.4.1 Baseline Conditions

The proposed Project is located in the Sacramento Valley Air Basin (SVAB), which encompasses 11 counties, including all of Shasta, Tehama, Glenn, Colusa, Butte, Sutter, Yuba, Sacramento, and Yolo counties; the westernmost portion of Placer County; and the northeastern half of Solano County. The SVAB is within the jurisdiction of the Butte County Air Quality Management District (BCAQMD). Within the SVAB, ambient air quality standards for ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns and 2.5 microns in diameter (PM_{10} and $PM_{2.5}$, respectively), and lead have been set by both the State of California and the federal government. The State has also set standards for sulfate and visibility. The SVAB is currently designated "nonattainment" for State and federal O_3 standards, the State PM_{10} standard, and the federal $PM_{2.5}$ standard. The SVAB is designated "attainment" or "unclassified" with respect to the other ambient air quality standards.

4.4.2 Thresholds

4.4.2.1 The 1970 Federal Clean Air Act (CAA)

The 1970 Federal Clean Air Act (CAA) authorized the establishment of national health-based air quality standards and set deadlines for their attainment. The CAA Amendments of 1990 changed deadlines for attaining national standards as well as the remedial actions required for areas of the nation that exceed the standards. Under the CAA, State and local agencies in areas that exceed the national standards are required to develop State Implementation Plans (SIPs) to demonstrate how they will achieve the national standards by specified dates.

4.4.2.2 California Clean Air Act (CCAA)

In 1988, the California Clean Air Act (CCAA) required that all air districts in the State endeavor to achieve and maintain California Ambient Air Quality Standards (CAAQS) for CO, O_3, SO_2, and NO_2 by the earliest practical date. The CCAA provides districts with authority to regulate indirect sources and mandates that air quality districts focus particular attention on reducing emissions from transportation and area-wide emission sources. Each nonattainment district is required to adopt a

plan to achieve a 5 percent annual reduction, averaged over consecutive 3-year periods, in district-wide emissions of each nonattainment pollutant or its precursors. A Clean Air Plan shows how a district would reduce emissions to achieve air quality standards. Generally, the State standards for these pollutants are more stringent than the national standards.

The California Air Resources Board (CARB) is the State's "clean air agency." CARB's goals are to attain and maintain healthy air quality, protect the public from exposure to toxic air contaminants, and oversee compliance with air pollution rules and regulations.

4.4.2.3 Butte County Air Quality Management District

The BCAQMD has specific air quality-related planning documents, rules, and regulations. This section summarizes the local planning documents and regulations that may be applicable to the project as administered by the BCAQMD with CARB oversight.

4.4.2.4 Rule 200—Nuisance

This rule prohibits the discharge of any nonvehicular sources that may cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public or that endanger the comfort, repose, health or safety of any such persons or the public.[6]

4.4.2.5 Rule 201—Visible Emissions

This rule prohibits the discharge into the atmosphere from any single nonvehicular source of emission of any air contaminant, other than uncombined water vapor, that will be considered darker in shade as that designated as No. 2 on the Ringelmann Chart or that would obscure an observer's view.[7]

4.4.2.6 Rule 202—Particulate Matter Concentration

This rule states that a person shall not discharge into the atmosphere from any source of particulate matter in excess of 0.3 grain per cubic foot of gas at standard conditions.[8]

4.4.2.7 Rule 205—Fugitive Dust Emissions

The purpose of this rule is to reduce ambient concentrations and limit fugitive emissions of fine particulate matter (PM10) from construction activities, bulk material handling and storage, carryout and trackout, and similar activities. Operations, including construction operations, must control fugitive dust emissions in accordance with Rule 205, which requires the implementation of control measures for fugitive dust emission sources (identified in the tables within the rule). Control

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6 Butte County Air Quality Management District (BCAQMD). 2002. Rule 200, Nuisance. Recodified August 22. Website: https://ww2.arb.ca.gov/sites/default/files/classic/technology-clearinghouse/rules/RuleID462.pdf (accessed December 2024).

7 BCAQMD. 2002. Rule 201, Visible Emissions. Recodified August 22. Website: https://ww2.arb.ca.gov/sites/default/files/classic/technology-clearinghouse/rules/RuleID463.pdf (accessed December 2024).

8 BCAQMD. 2010. Rule 202, Particulate Matter Concentration. Recodified August 22. Website: https://ww2.arb.ca.gov/sites/default/files/classic/technology-clearinghouse/rules/RuleID464.pdf (accessed December 2024).

measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers, and/or ceasing all activities.[9]

4.4.2.8 Rule 230—Indirect Source Review

The purpose of this rule is to limit the quantity of volatile organic compounds (VOCs) in architectural coatings used within the BCAQMD. This rule is applicable to any person who supplies, sells, offers for sale, or manufactures any architectural coating for use within the BCAQMD.[10]

4.4.2.9 Air Quality Management Plan

The BCAQMD is responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the air basin. The main purpose of an AQMP is to bring the area into compliance with federal and State air quality standards. The BCAQMD, along with the other air districts in the SVAB region, prepared the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (Ozone Attainment Plan) in December 2008. CARB determined that the Ozone Attainment Plan met CAA requirements and approved the Plan on March 26, 2009, as a revision to the SIP. An update to the plan, the 2017 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan (2017 Ozone Attainment Plan), was prepared and adopted by CARB on November 16, 2017. An additional update to the plan was prepared and adopted by CARB on October 15, 2018, and is known as the 2018 Updates to the California State Implementation Plan. In addition, the BCAQMD is also party to the Northern Sacramento Valley Planning Area 2021 Triennial Air Quality Attainment Plan (adopted on April 4, 2022), which was specifically developed to cover the Planning Areas of Shasta, Tehama, Glenn, Butte, Colusa, and Feather River.

The BCAQMD's AQMPs incorporate the latest scientific and technological information and planning assumptions, including updated emission inventory methodologies for various source categories. The BCAQMD's AQMPs included the integrated strategies and measures needed to meet the National Ambient Air Quality Standards (NAAQS), implementation of new technology measures, and demonstrations of attainment of the 1-hour and 8-hour O_3 NAAQS as well as the State 24-hour PM_{10} standards.[11]

4.4.2.10 City of Chico General Plan 2030

Open Space and Environment Element.

- Policy OS-4.1 (Air Quality Standards): Work to comply with state and federal ambient air quality standards and to meet mandated annual air quality reduction targets.

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9 BCAQMD. 2010. Rule 205, Fugitive Dust Emissions. Amended May 27. Website: https://ww2.arb.ca.gov/sites/default/files/classic/technology-clearinghouse/rules/RuleID467.pdf (accessed December 2024).

10 BCAQMD. 2022. Rule 230, Architectural Coatings. Amended September 22. Website: https://ww2.arb.ca.gov/sites/default/files/classic/technology-clearinghouse/rules/RuleID4923.pdf (accessed December 2024).

11 BCAQMD. 2024. Air Quality Standards & Attainment Planning. Website: https://www.bcaqmd.org/air-quality-standards-attainment-planning (accessed January 2025).

- Action OS-4.1.1 (Air Quality Impact Mitigation): During project and environmental review, evaluate air quality impacts and incorporate applicable mitigations, including payment of air quality impact fees, to reduce impacts consistent with the Butte County Air Quality Management District's CEQA Air Quality Handbook.

4.4.3 Impact Analysis

a. Would the project conflict with or obstruct implementation of the applicable air quality plan? ***(Less Than Significant Impact)***

According to the BCAQMD, the CCAA requires preparation of air quality attainment plans for designated NAAQS and/or CAAQS nonattainment or maintenance areas.[12] In order to meet these standards, attainment plans first project future emissions based upon growth assumptions for the jurisdictions within a given plan area. Measures are then promulgated to limit nonattainment emissions to the required standard. In general, a project conflicts with or obstructs implementation of the applicable attainment plan if it would result in or induce growth in population, employment, land use, or regional vehicle miles traveled (VMT) that is inconsistent with the growth (and therefore the emission projection) assumptions in the applicable attainment plan.

The applicable air quality plan is the Northern Sacramento Valley Planning Area 2021 Triennial Air Quality Attainment Plan (2021 Triennial Plan). When growth assumptions are consistent, a project would not conflict with or obstruct implementation of the air quality plan.

In compliance with the *State CEQA Guidelines*, the analysis below evaluates whether implementation of the proposed Project would conflict with or otherwise obstruct implementation of regional air quality plans. For air quality planning purposes, the 2021 Triennial Plan contains emissions inventories based on existing and foreseeable future land uses within its jurisdiction. If a new project is consistent with the planned land use designation that was considered in the development of an AQMP and is consistent with population, employment, and VMT growth assumptions used in the plan, the proposed Project would not conflict and would not obstruct implementation of the applicable clean air plan. Generally, a project's conformance with a local general plan that was considered in the preparation of an AQMP would demonstrate that the project would not conflict with or obstruct implementation of the AQMP.

The Project would create improvement projects in order to relieve existing and build-out scenario deficiencies under PWWF conditions to ensure that sufficient capacity is available for future use. Improvements would consist of upsizing pipes along the existing alignment and the construction of new gravity sewer alignments. The Project would not induce growth in population, employment or VMT. Additionally, the proposed Project would not conflict with the City's General Plan or the County's General Plan land use designations or zoning. Therefore, the Project would not conflict with or obstruct implementation of the applicable air quality plan, and this impact would be **less than significant**.

[12] BCAQMD. 2024. *Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review.* March.

b. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? ***(Less Than Significant Impact)***

As identified above, the SVAB is designated as non-attainment for federal O_3 standards and non-attainment for State O_3 and PM_{10} standards. The BCAQMD's nonattainment status is attributed to the region's development history. Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

In developing thresholds of significance for air pollutants, the BCAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. Therefore, additional analysis to assess cumulative impacts is not necessary. The following analysis assesses the potential project-level air quality impacts associated with construction and operation of the proposed Project.

Construction Emissions. During construction, short-term degradation of air quality may occur due to the release of particulate matter emissions (i.e., fugitive dust) generated by grading, hauling, and other activities. Emissions from construction equipment are also anticipated and would include CO, nitrogen oxide (NO_X), reactive organic gases (ROG), directly emitted particulate matter ($PM_{2.5}$ and PM_{10}), and toxic air contaminants such as diesel exhaust particulate matter.

Construction activities would include grubbing and land clearing; grading and excavation; drainage, utilities, and sub-grade; and paving. Construction-related effects on air quality from the proposed Project would be greatest during the site preparation phase due to the disturbance of soils. If not properly controlled, these activities would temporarily generate particulate emissions. Sources of fugitive dust would include disturbed soils at the construction site. Unless properly controlled, vehicles leaving the site would deposit dirt and mud on local streets, which could be an additional source of airborne dust after it dries. PM_{10} emissions would vary from day to day, depending on the nature and magnitude of construction activity and local weather conditions. PM_{10} emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of operating equipment. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

Water or other soil stabilizers can be used to control dust, resulting in emission reductions of 50 percent or more. The BCAQMD has established Rule 205: Fugitive Dust, which would require the Applicant to implement measures that would reduce the amount of particulate matter generated during the construction period. The Rule 205 measures that were incorporated in this analysis include:

- Water active sites at least three times daily (locations where grading is to occur shall be thoroughly watered prior to earthmoving).

- Cover all trucks hauling dirt, sand, soil, or other loose materials, or maintain at least 2 feet (0.6 meter) of freeboard (vertical space between the top of the load and the top of the trailer) in accordance with the requirements of California Vehicle Code Section 23114.

- Reduce traffic speeds on all unpaved roads to 15 miles per hour or less.

In addition to dust-related PM_{10} emissions, heavy trucks and construction equipment powered by gasoline and diesel engines would generate CO, SO_2, NO_X, ROGs and some soot particulate ($PM_{2.5}$ and PM_{10}) in exhaust emissions. If construction activities were to increase traffic congestion in the area, CO and other emissions from traffic would increase slightly while those vehicles are delayed. These emissions would be temporary and limited to the immediate area surrounding the construction site.

Although each project identified in the 2025 SSMP would review individual projects contemplated and would be evaluated for site-specific air quality impacts, potential construction emissions were estimated for the project using the California Emissions Estimator Model (CalEEMod) version 2022.1, consistent with BCAQMD recommendations. As described in Section 2.0, Project Description, the Project would create improvement projects in order to relieve existing and build-out scenario deficiencies under PWWF conditions. Improvements would consist of upsizing pipes along the existing alignment and the construction of new gravity sewer alignments. Construction of the proposed Project improvements would span approximately 10 years, starting in 2025 and ending 2035, which was included in CalEEMod. Construction activities would include grubbing and land clearing; grading and excavation; drainage, utilities, and sub-grade; and paving. This analysis assumes that the build out of the improvement projects would result in a total of approximately 142,560 feet of sewer alignment, which was included in CalEEMod. This analysis also assumes that construction of the proposed Project would not require the import or export of soil. In addition, this analysis assumes use of Tier 2 construction equipment. Other detailed construction information is currently unavailable; therefore, this analysis utilizes CalEEMod default assumptions.

As shown in Table 4.3.A, construction emissions associated with the proposed Project would not exceed the BCAQMD daily thresholds for ROG, NO_x, or PM_{10} emissions. However, maximum annual NO_X emissions would exceed the BCAQMD threshold of 4.5 tons per year if all the projects were to be implemented within a single year. The 2025 SSMP identifies projects to be implemented over a 10-year period. Individual projects contemplated under the 2025 SSMP would be evaluated for site-specific air quality impacts and would include appropriate mitigation as necessary to address impacts with regard to conflicts with an applicable air quality plan.

To demonstrate potential reduction options for impacts associated with annual NO_X emissions, should review of site-specific exceedances occur during future CEQA analysis for each project, the use of Tier 4 Final engines—or the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type, as certified by CARB—along with compliance with BCAQMD Rule 205: Fugitive Dust, would help mitigate construction-related emissions, if warranted, and as shown in Table 4.3.B.

Table 4.3.A: Project Construction Emissions

Project Construction	ROG	NO_X	PM_{10}
Pounds per Day			
Maximum Daily Emissions	2.4	59.7	6.5
BCAQMD Thresholds	**137.0**	**137.0**	**80.0**
Exceed Threshold?	**No**	**No**	**No**
Tons per Year			
Maximum Annual Emissions	**0.3**	**7.8**	**0.8**
BCAQMD Thresholds	**4.5**	**4.5**	**N/A**
Exceed Threshold?	**No**	**Yes**	**No**

Source: BCAQMD. *CEQA Air Quality Handbook,* March 28, 2024.
BCAQMD = Butte County Air Quality Management District
N/A = not applicable
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
ROG = reactive organic compounds

Table 4.3.B: Mitigated Project Construction Emissions

Project Construction	ROG	NO_X	PM_{10}
Pounds per Day			
Maximum Daily Emissions	1.6	31.0	4.7
BCAQMD Thresholds	**137.0**	**137.0**	**80.0**
Exceed Threshold?	**No**	**No**	**No**
Tons per Year			
Maximum Annual Emissions	**0.2**	**4.0**	**0.6**
BCAQMD Thresholds	**4.5**	**4.5**	**N/A**
Exceed Threshold?	**No**	**No**	**No**

Source: BCAQMD. *CEQA Air Quality Handbook,* March 28, 2024.
BCAQMD = Butte County Air Quality Management District
N/A = not applicable
NO_X = nitrogen oxides
PM_{10} = particulate matter less than 10 microns in diameter
ROG = reactive organic compounds

Operational Emissions. Long-term air emission impacts are associated with stationary sources and mobile sources. Stationary-source emissions result from the consumption of natural gas and electricity. Mobile-source emissions result from vehicle trips and result in air pollutant emissions affecting the entire air basin. The proposed Project would replace and upgrade sewer facilities. Currently, the City maintains the sanitary sewer and storm drain collection system through three basic programs: zone maintenance, television camera inspection, and regular interval maintenance. All operational and maintenance activities are in accordance with the City's SSMP. Upon completion of construction activities, operation and maintenance associated with the proposed Project would remain the same as currently occurs for the existing sewer facilities. Based on Section 4.18, Transportation, no additional trips are anticipated due to implementation of the proposed Project. As such, the proposed Project would not result in a significant increase in the generation of vehicle trips or VMT that would increase air pollutant emissions. The proposed Project would not result in a substantial source of energy- or area-source emissions. Therefore, operation of the proposed

Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable NAAQS or CAAQS standard. Impacts would be **less than significant**.

c. Would the project expose sensitive receptors to substantial pollutant concentrations? ***(Less Than Significant Impact)***

Sensitive receptors are defined as residential uses, schools, daycare centers, nursing homes, and medical centers. Individuals particularly vulnerable to diesel particulate matter are children, whose lung tissue is still developing, and the elderly, who may have serious health problems that can be aggravated by exposure to diesel particulate matter. Exposure from diesel exhaust associated with construction activity contributes to both cancer and chronic noncancer health risks.

Construction of the proposed Project may expose nearby sensitive receptors to airborne particulates, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, construction contractors would be required to implement construction fugitive dust minimization measures, as required by BCAQMD Rule 205, which would further reduce fugitive dust emissions. Additionally, due to the linear nature of the project, construction activities at any one receptor location would occur for a limited duration. Once the project is constructed, the project would not be a source of substantial emissions. Therefore, sensitive receptors are not expected to be exposed to substantial pollutant concentrations during project construction or operation, and potential impacts would be considered **less than significant.**

d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people? ***(Less Than Significant Impact)***

The Project's potential to result in emissions adversely affecting a substantial number of people is described below.

Construction. Project construction would generate limited odors over the short term, primarily from equipment exhaust. However, construction activity would be temporary and would cease after individual construction is completed. Additionally, construction activities that would generate odors are expected to be isolated to the immediate vicinity of the construction site. Therefore, odors from construction equipment exhaust and installation of asphalt surfaces would not adversely affect a substantial number of people.

Additionally, the Project would be required to implement standard control measures to limit fugitive dust and construction equipment emissions, which would reduce odor impacts, in accordance with BCAQMD Rules 200, 201, and 205. SCAQMD Rule 402 regarding nuisances states: "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." Adherence to the standards identified in BCAQMD Rule 200 would be required for all projects to reduce emissions and objectionable odors impacts. Therefore, project construction activities would

not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be **less than significant,** and no mitigation is required.

Operation. Land uses generally associated with long-term objectionable odors include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities. The Project area encompasses the region serviced by the City's sanitary sewer collection system, which includes adjacent residential land uses. The purpose of the proposed Project is to relieve existing and build-out scenario deficiencies under PWWF conditions to ensure that sufficient capacity is available for future use. Improvements under the proposed Project would consist of upsizing pipes along the existing alignment as well as installing new gravity sewer alignments to reduce the need for additional lift stations. Although the proposed Project would include collection of wastewater and the expansion of sewer treatment capacity within the city, including the surrounding residential land uses, the proposed Project would improve the existing conditions by mitigating capacity deficiencies for both existing and build-out scenarios. Furthermore, the proposed Project would be required to adhere to odor control standards outlined in BCAQMD Rule 200. Therefore, operation of the proposed Project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be **less than significant**.

4.5 BIOLOGICAL RESOURCES

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

4.5.1 Baseline Conditions

This evaluation is based on review of relevant data sources and a windshield survey of the 2025 SSMP area, provided in **Appendix A**. Data sources reviewed included the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB),[13] the CDFW's Biogeographic Information and Observation System, the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California,[14] the United States Fish and Wildlife Service's (USFWS) Information for Planning and Consultation system,[15] the USFWS' Critical Habitat Mapper, the USFWS' National Wetlands Inventory (NWI),[16] and the United States Geological Survey's (USGS)

[13] California Natural Diversity Database (CNDDB). January 24,2024. Website: https://map.dfg.ca.gov/rarefind/view/RareFind.aspx (accessed December 2024)

[14] California Native Plant Society (CNPS). 2024. Inventory of Rare and Endangered Plants. Website: www.rareplants.cnps.org. (accessed December 2024)

[15] United States Fish and Wildlife Service (USFWS). Information for Planning and Consultation System. Website: https://ecos.fws.gov/ipac/ (accessed December 2024)

[16] USFWS. National Wetlands Inventory Wetlands Mapper. Website: https://www.fws.gov/wetlands/data/mapper.html (accessed December 2024)

National Hydrography Dataset. For each of these data sources, the search was focused on the *Chico, California* USGS 7.5-minute quadrangle in which the project is located, plus the surrounding eight quadrangles. The Chico General Plan and associated Draft EIR were also reviewed, and relevant information was incorporated.

A windshield survey (**Appendix A**) was conducted on December 20, 2024, to visit each currently proposed project site that was accessible and to generally characterize the existing conditions within the City's SOI. Habitat types described are based on the CDFW's California Wildlife Habitat Relationships. For the purposes of this report, special-status resources include:

- Species listed or proposed to be listed as threatened or endangered or otherwise considered candidates for listing under the Federal Endangered Species Act (FESA);
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA);
- Species designated as CDFW Fully Protected Species or Species of Special Concern;
- Plant species with a California Rare Plant Rank (CRPR) in categories 1 or 2;
- Species designated as sensitive by the United States Forest Service or Bureau of Land Management, if the project would affect lands administered by these agencies;
- Species designated as locally important by the local agency and/or otherwise protected through ordinance or local policy;
- Sensitive natural communities as defined by the CDFW or local agencies; and
- Aquatic features.

Assessments for the potential occurrence of special-status plant and animal species are based on known ranges, habitat preferences for the species, species occurrence records from the CNDDB and CNPS, and the results of the windshield survey of the SOI. Each of special-status species was assessed for its potential to be impacted at each of the currently proposed project sites as well as its general potential for occurrence within the SOI based on habitats present.

The SOI is in the northeastern Sacramento Valley at the base of the Sierra Nevada foothills. The area is characterized by a Mediterranean climate of warm summers and mild, wet winters. Average high temperatures range from 55°Farhenheit (°F) in December to 96°F in July. Average low temperatures range from 35°F in January to 60°F in July. Precipitation occurs primarily as rain, most of which falls from November to April but can occur year-round, with an average of 25.66 inches of rainfall per year.

Most of the SOI is relatively flat to gently sloping in the urban developed areas, with elevations ranging from about 153 feet amsl to about 300 feet amsl. Slopes become steeper where the eastern portion of the SOI extends into the Sierra Nevada foothills, with the highest elevation reaching

approximately 1,500 feet amsl above Bidwell Park. The SOI is bounded to the west and south by dense agricultural development and scattered residential, commercial, and industrial development, and to the north and east by largely undeveloped foothills and mountains.

Several drainages traverse the SOI, including Big Chico Creek, Little Chico Creek, Dead Horse Slough, Mud Creek, Lindo Channel, Comanche Creek, Sycamore Creek, Keefer Slough, and several smaller drainages. Portions of these drainages are channelized, while other portions retain natural riparian and riverine characteristics. Several fresh emergent wetlands are mapped by the USFWS NWI within and adjacent to the SOI, many of which are associated with these drainages.

Additionally, several vernal pool complexes have historically been present on the lower Sierra Nevada foothills in the eastern portion of the SOI.[17] Many of these areas remain intact.

The SOI spans two ecoregions, the Great Valley (North) and Sierra Nevada Foothills, and includes several different habitat types as described below in Table 4.5.A in accordance with the California Wildlife Habitat Relationships System.[18]

4.5.2 Thresholds

4.5.2.1 Federal Endangered Species Act of 1973 (USC Title 16, Sections 1531–1543)

FESA and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. FESA defines species as threatened or endangered and provides regulatory protection for listed species. The USFWS and National Marine Fisheries Service (NMFS) share responsibilities for administering FESA. Section 9 of FESA prohibits the "take" of species listed by the USFWS as threatened or endangered, unless it is incidental to an otherwise legal activity. As defined by FESA, take means "...to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct." The definition of "harm" includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. "Harass" is defined as actions that create the likelihood of injury to listed species by disrupting normal behavioral patterns related to breeding, feeding, and shelter significantly. If an activity could result in "take" of a listed species as an incident of an otherwise lawful activity, then a biological opinion can be issued with an incidental take statement that exempts the activity from FESA's take prohibitions.

Section 7 of FESA requires federal agencies to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction of adverse modification of critical habitat for these species. Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit.

[17] California Department of Fish and Wildlife (CDFW). Biogeographic Information and Observation System. Website: www.wildlife.ca.gov/data/BIOS (accessed December 2024)

[18] Zeiner, D., W.F. Laudenslayer, Jr., and K.E. Mayer. 1990. California's Wildlife. California Department of Fish and Wildlife (accessed December 2024).

Table 4.5.A: California Wildlife Habitat Relationships Habitat Types within the Master Plan Area

Habitat Type	Characteristics	Abundance
Tree Dominated Habitats		
Valley Foothill Riparian (VRI)	Typically dense, mature riparian forest dominated by cottonwood (*Populus* sp.), sycamore (*Platanus racemosa*), and valley oak (*Quercus lobata*) with subcanopy and shrub layers; subcanopy trees may include alder (*Alnus* sp.), boxelder (*Acer negundo*), and Oregon ash (*Fraxinus latifolia*); shrubs may include wild grape (*Vitis californica*), wild rose (*Rosa californica*), California blackberry (*Rubus ursinus*), blue elderberry (*Sambucus mexicana*), poison oak (*Toxicodendron diversilobum*), and willows (*Salix* sp.); herbs include species such as miner's lettuce (*Claytonia perfoliata*), sedges (*Carex* sp.), rushes (*Juncus* sp.), grasses (Poaceae), and nettle (*Urtica dioic*a ssp. *gracilis*); may intergrade upstream with Montane Riparian; found on the Central Valley floor, alluvial fans, terraces, lower foothills and coastal plains up to 3,000 feet in elevation, reaching as high as 5,000 feet on south-facing slopes.	Present along riparian areas. Most abundant along Big Chico Creek, Lindo Channel Little Chico Creek, and Comanche Creek. Scattered patches along Mud Creek and Sycamore Creek, Little Chico Creek, Crouch Ditch, and Butte Creek.
Eucalyptus (EUC)	May form as dense forest with little to no understory or as scattered trees over herbaceous and shrubby understories; usually forms a dense monotypic stand with a closed canopy; many stands planted for wind breaks or wood harvesting; found throughout the State below 1,500 feet in elevation, mostly around populated areas.	Various locations around Chico.
Blue Oak-Foothill Pine (BOP)	Diverse assemblage of hardwoods, conifers and shrubs interspersed with Annual Grassland; blue oak (*Quercus douglasii*) and foothill pine (*Pinus sabiniana*) dominate the overstory; other tree species include interior live oak (*Q. wislizeni*), and California buckeye (*Aesculus californica*); relative densities of blue oaks and foothill pines vary with elevation; patchy density of shrubs including poison oak (*Toxicodendron diversilobum*), ceanothus (*Ceanothus* sp.), manzanitas (*Arctostaphylos* sp.), coffeeberry (*Frangula californica*), lupines (*Lupinus* sp.), blue elderberry, and gooseberry (*Ribes* sp.); often forms a mosaic with other habitats including Blue Oak Woodland, Valley Oak Woodland, and Annual Grassland; found between 500 and 3,000 feet in elevation around the perimeter of the Central Valley.	Widely scattered occurrences in the upper foothills. Intergrades with Blue Oak Woodland.
Valley Oak Woodland (VOW)	Density can vary from savannah-like to forest-like; shrubs may be absent or dense; dominated by valley oaks; other tree species may include California sycamore, interior live oak, blue oak, boxelder, and black walnut (*Juglans hindsii*); understory includes California blackberry, blue elderberry, poison oak, toyon (*Heteromeles arbutifolia*), and coffeeberry; grasses and herbs are typically dominated by non-native bromes (*Bromus* sp.), oats (*Avena* sp.), barely (*Hordeum* sp.), and mustards (*Brassica* sp.); most common in deep, well-drained alluvial soils, usually on valley bottoms where larger oaks can root down toa permanent water supply; usually below 2,000 feet in elevation.	Scattered occurrences along Big Chico Creek, mostly in the Bidwell Park area, and along Little Chico Creek in the foothills; Also, at Chico Municipal Airport.
Blue Oak Woodland (BOW)	Typically forms savanna-like stands of varying densities on slopes with shallow, rocky, infertile, well-drained soils; shrubs present in low density; understory dominated by Annual Grassland; dominate tree species is blue oak; common associates trees include interior live oak and valley oak; often intergrades with foothill pine; shrubs may include poison oak, coffeeberry, California buckeye, and manzanita species; most common below 2,000 feet in elevation on the western Sierra Nevada slopes.	Across much of the lower foothills east of Chico. Intergrades with Blue Oak-Foothill Pine.

Table 4.5.A: California Wildlife Habitat Relationships Habitat Types within the Master Plan Area

Habitat Type	Characteristics	Abundance
Montane Hardwood (MHW)	Dominated by hardwood species with scattered shrubs and sparse herbaceous layer; in the Sierra Nevada mountains, canyon live oak (*Quercus chrysolepis*) dominates with scattered Douglas fir (*Pseudotsuga menziesii*) and conifers at higher elevations and foothill pine, tanoak (*Notholithocarpus densiflorus*), madrone (*Arbutus menziesii*), and California laurel (*Umbellularia californica*) at lower elevations; understory includes currant (*Ribes* sp.), wood rose (*Rosa bridgesii*), snowberry (*Symphoricarpos* sp.), manzanita, poison oak and few grasses and forbs; found on wide range of moderate to steep slopes; soils are coarse, rocky, poorly developed and well-drained; found mostly west of the Cascade-Sierra Nevada crest at elevations from 300 feet to 9,000 feet in elevation.	Sierra Nevada foothills, mostly above 500 feet, including upper Bidwell Park and higher elevations. Limited to the highest elevations within the SOI.
Shrub-Dominated Habitats		
Mixed Chaparral (MCH)	Dominated by dense, nearly impenetrable evergreen shrubs with greater than 80 percent absolute cover; shrub cover may be as low as 30 percent on sites with poorly developed soils, serpentine soils, or transmontane slopes; more than 240 woody plant species found in this habitat type, with composition varying based on elevation, soil, slope aspect, and precipitation; scrub oak (*Quercus berberidifolia*), chaparral oak (*Q. wislizeni* var. *frutescens*), ceanothus, and manzanita are common dominants; associated shrubs include chamise (*Adenostoma fasciculatum*), mountain mahogany (*Cercocarpus* sp.), toyon, California buckeye, poison oak, sumac (*Malosma laurina*), and hollyleaf cherry (*Prunus ilicifolia*); leaf litter and plant detritus may be dense in stands that haven't burned recently; intergrades with several other habitat types; most often found on north-facing slopes on a variety of soil types below 5,000 feet in elevation.	Sierra Nevada foothills, mostly above 500 feet, including upper Bidwell Park and higher elevations.
Herbaceous-Dominated Habitats		
Annual Grassland (AGS)	Dominated primarily by annual grasses including many non-native bromes, oats, barley (*Hordeum* sp.), and fescue (*Festuca* sp.); common forbs include filaree (*Erodium* sp.), clover (*Trifolium* sp., *Medicago* sp.), mustard, and many others; may form then understory of other habitats such as Valley Oak Woodland and Blue Oak Woodland; found mostly on flat plains or gently rolling foothills on Entisols and Alfisols; perennial grasslands form inclusions within Annual Grassland mostly in northern sites with moist soils and little human or agricultural disturbance; found throughout the State, mostly at lower elevations.	Throughout foothills, alluvial plans and valley floor. Intergrades with perennial grassland. Also associated with riparian corridors including Mud Creek, Lindo Channel, Sycamore Creek, Little Chico Creek, Comanche Creek, Butte Creek Diversion Channel, Crough Ditch, and other unnamed drainages. Large expanse at Chico Municipal Airport.
Fresh Emergent Wetland (FEW)	Characterized by erect, rooted hydrophytic herbs, generally perennial monocots such as sedges, rushes, cattails (*Typha* sp.), bulrushes (*Schoenoplectus* sp.); saltgrass (*Distichlis spicata*) on more alkali sites; wetlands must be flooded frequently enough to allow anaerobic conditions; may be associated with terrestrial and or aquatic habitats; most common on level to gently rolling hills below 7,500 feet in elevation.	Scattered locations including Teichert Ponds and other locations adjacent to Little Chico Creek and scattered small locations along Sycamore Creek.

Table 4.5.A: California Wildlife Habitat Relationships Habitat Types within the Master Plan Area

Habitat Type	Characteristics	Abundance
Aquatic Habitats		
Riverine (RIV)	Rivers and streams of intermittent or perennial water flow; water speed varies with slope and volume; may or may not have an open water zone; various hydrophytic plant species may be present, including those found in Fresh Emergent Wetlands, Valley Foothill Riparian, Montane Riparian, and Desert Riparian; found throughout the State below 8,000 feet in elevation.	Mud Creek, Sycamore Creek, Lindo Channel, Big Chico Creek, Dead Horse Slough, Little Chico Creek, Butte Creek Diversion Channel, Crouch Ditch, Comanche Creek, Butte Creek, Durham Mutual Ditch, and various unnamed drainages.
Lacustrine (LAC)	Inland depressions or damned river channels; size is highly variable and include ponds less than one hectare to large lakes covering several square kilometers; depth varies; plant species include various phytoplanktons in open water and various hydrophytic species around the perimeter; fish may be present in permanent lakes and ponds; found throughout California at nearly all elevations.	Artificial lakes at Lakeside Pavilion (California Park Lake) and one small lake at Bidwell Park.
Developed Habitats		
Urban (URB)	Five types of vegetative structure including tree grove, street strip, shade tree/lawn, lawn, and shrub cover; species most commonly include horticultural plant varieties but may include a mix of native species; found in cities, towns, and villages throughout California.	Occupies most of the SOI, mostly on the valley floor.
Orchard – Vineyard (OVN)	Typically, a single species dominated habitats of either deciduous or evergreen agricultural species; trees or vines planted in rows and irrigated (drip irrigation or flood irrigation); understory intensively maintained for little to now herbaceous growth; found on flat alluvial soils and rolling foothills, less often on relatively steep slopes; found throughout the State except at the highest elevations or most densely urbanized areas.	Abundant on valley floor west of State Route 99, mostly north, west, and south of urban Chico.
Cropland (CRP)	Includes a wide variety of cultivated food plants; may be irrigated or not; most grown in rows though some grains planted over 100 percent of acreage; found throughout the State on the most fertile soils on flat or gently rolling terrain.	Mostly found on the outskirts of urban Chico on the valley floor.
Nonvegetated Habitats		
Barren (BAR)	Areas with less than 2 percent of total vegetation cover by any herbs and forbs and less than 10 percent cover by trees or shrubs; intergrades with many other habitats; some habitats may be barren seasonally; may be the result of human disturbance, such as disking/plowing fields or grading development sites; found throughout the state at all elevations.	Various disturbed locations throughout urban Chico and dry streambeds.

Sources: Mayer and Laudenslayer 1988, CDFW 2024b

4.5.2.2 Migratory Bird Treaty Act (USC Title 16, Sections 703–711)

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, states that it shall be unlawful, except as permitted by regulations, "to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird" (United States Code [USC] Title 16, Section 703). The MBTA currently includes several hundred species and includes all birds native to the United States.

4.5.2.3 Bald and Golden Eagle Protection Act of 1940 (USC Title 16, Section 668)

The Bald and Golden Eagle Protection Act (BGEPA) of 1940 protects bald eagles (*Haliaeetus leucoephalus*) and golden eagles (*Aquila chrysaetos*) by prohibiting the take, possession, and commerce of these species and established civil penalties for violation of this act. Take of bald and golden eagles includes to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." To disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available: (1) injury to an eagle; (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment, by substantially inferring with normal breeding, feeding, or sheltering behavior (Federal Register, volume 72, page 31132; 50 CFR 22.3).

The BGEPA was amended in 2022 to allow USFWS to issue permission for take of bald and golden eagles under specific circumstances as outlined in 50 CFR 22 Subpart C. Take permits may be issued where "the take is compatible with the preservation of the bald eagle and the golden eagle; is necessary to protect an interest in a particular locality; is associated with, but not the purpose of, the activity; and cannot practicably be avoided" (50 CFR 22.80).

4.5.2.4 Federal Clean Water Act (USC, Title 33, Sections 1521–1376)

The federal Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters.

Section 404 establishes a permit program administered by the United States Army Corps of Engineers (USACE) that regulates the discharge of the dredged or fill material into waters of the United States, including wetlands, which may be allowed only if there is no practicable alternative that would have less adverse impacts.

Section 401 requires that a project applicant pursuing a federal license or permit for discharge to waters of the United States obtain State Certification of Water Quality. The SWRCB administers the certification program in California, primarily through its regional boards. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States.

Under Section 10 of the Rivers and Harbors Act, the USACE regulates the construction of any structure in or over any navigable water of the United States.

4.5.2.5 California Environmental Quality Act (California Public Resources Code, Sections 21000–21178, and Title 14 CCR, Section 753, and Chapter 3, Sections 15000–15387)

CEQA is California's broadest environmental law that helps guide the issuance of permits and approval of projects. CEQA applies to all discretionary projects proposed to be conducted or approved by a State, county, or city agency, as well as private projects requiring discretionary government approval.

The purpose of CEQA is to disclose to the public the significant environmental effects of a proposed discretionary project; prevent or minimize damage to the environment through development of

project alternatives, mitigation measures, and mitigation monitoring; disclose to the public the agency decision-making process to approve discretionary projects; enhance public participation in the environmental review process; and improve interagency coordination.

State CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or State list of protected species may nonetheless be considered rare or endangered for purposes of CEQA if the species can be shown to meet certain specified criteria.

4.5.2.6 California Endangered Species Act (California Fish and Game Code Section 2050 et seq.)

CESA establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that would result in take of a species listed under CESA, a project proponent would need to obtain a take permit under Section 2081(b).

4.5.2.7 Porter-Cologne Water Quality Control Act

"Waters of the State" are broadly defined by the Porter-Cologne Water Quality Control Act (Porter-Cologne Act) (§ 1305(e)) as "any surface water or groundwater, including saline waters, within the boundaries of the state." Under this definition, isolated wetlands that may not be subject to regulations under federal law are waters of the State.

On April 2, 2019, the SWRCB adopted its *State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (revised April 6, 2021), herein referred to as Procedures, in which it defined wetlands as follows:

> *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.*

The State's definition of a wetland deviates from the USACE procedures in that a lack of vegetation does not disqualify a feature from identification as a wetland water of the State, otherwise referred to as nonfederal waters of the State.

All artificial wetlands that are less than 1 acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the State.

All waters of the United States, including that meet the current and any historic definition, are also considered waters of the State (CCR 23 3831 (w)). Therefore, waters of the State include features that have been determined by the United States Environmental Protection Agency (USEPA) or the USACE to be "waters of the United States" in an approved jurisdictional determination; "waters of the United States" identified in an aquatic resource report verified by the USACE upon which a permitting decision was based; and features that are consistent with any current or historic final

judicial interpretation of "waters of the United States" or any current or historic federal regulation defining "waters of the United States" under the federal CWA.

The State is further required to comply with Executive Order W-59-93 published August 23, 1993, which states that the "Water Boards' regulation of dredge and fill activities must ensure "no net loss" and long-term net gain in the quantity, quality, and permanence of wetlands acreages and values…"

4.5.2.8 Various Sections of the California State and Fish and Game Code

Sections 1600 through 1616. CDFW regulates all activities (construction, discharge, dredge, diversion, etc.) within rivers, streams, and lakes, and associated riparian vegetation, under California Fish and Game Code Section 1600 *et seq*. regardless of land ownership. The limits of their jurisdiction are generally considered to include all area within the bed, bank, and channel of a river, stream, or lake, plus the outer extent of riparian vegetation immediately adjacent to these aquatic features. Recently CDFW has asserted jurisdiction as far out as the limits of the 100-year floodplain around rivers, streams, and lakes. This also includes man-made and/or channelized streams located where natural streams historically occurred, or that are connected to natural streams. Isolated wetlands that are not located within these jurisdictional limits are not regulated by CDFW.

Sections 3511, 4700, 5050, and 5515. The protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statues prohibit the take or possession of fully protected species. CDFW is unable to authorize incidental take of fully protected species, except as allowed for in an approved Natural Communities Conservation Plan (NCCP) or through direct legislative action.

Sections 1900 through 1913—Native Plant Protection Act. California's Native Plant Protection Act (NPPA) requires all State agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the NPPA prohibit the take of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that otherwise would be destroyed. A project proponent is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

4.5.2.9 City of Chico General Plan 2030

Open Space and Environment Element.

- Goal OS-1: Protect and conserve native species and habitats.
    - Policy OS-1.1: (Native Habitats and Species) – Preserve native species and habitat through land use planning, cooperation, and collaboration.
    - Policy OS-1.2: (Regulatory Compliance) – Protect special-status plant and animal species, including their habitats, in compliance with all applicable state, federal and other laws and regulations.

- Policy OS-1.3: Reduce excessive nighttime light and glare.

- Goal OS-2: Connect the community with a network of protected and maintained open space and creekside greenways to build knowledge and appreciation of these resources.
  - Policy OS-2.1: (Planning and Managing Open Space) – Continue acquisition, management, and maintenance of open space to protect habitat and promote public access.
  - Policy OS-2.2: (Creek Corridors and Greenways) – Expand creekside greenway areas for open space and additional pedestrian/bicycle routes.
  - Policy OS-2.4: (Foothill Viewshed) – Preserve the foothills as a natural backdrop to the urban form.
  - Policy OS-2.5: (Creeks and Riparian Corridors) – Preserve and enhance Chico's creeks and riparian corridors as open space for their aesthetic, drainage, habitat, flood control, and water quality values.
  - Policy OS-2.6: (Oak Woodlands) – Protect oak woodlands as open space for sensitive species and habitat.

- Goal OS-3: Conserve water resources and improve water quality.
  - Policy OS-3.1: (Surface Water Resources) – Protect and improve the quality of surface water.

4.5.2.10 City of Chico Tree Ordinances

CMC Chapter 16.66, Tree Preservation Regulations, controls the removal and preservation of trees on (a) all undeveloped private property within the City that is 10,000 square feet or greater in size and (b) all property that requires discretionary approval of a land use entitlement. Under these regulations, trees afforded protection include "any live woody plant having a single perennial stem of 18 inches or more in diameter, or multistemmed perennial plant greater than 15 feet in height having an aggregate circumference of 40 inches or more, measured at four feet six inches above adjacent ground, and a species specific list at 12 inches (All Oaks, Sycamores, Oregon ash, Big leaf maple) and 6 inches trees (Blue oak, Canyon live oak, Interior live oak, California Buckeye, Madrone, Toyon, Redbud, California bay, Pacific dogwood) with the exception of the following tree species: Ailanthus, Chinese Tallow, Freemont Cottonwood or Poplar, Privet, Box Elder, Silver Wattle, Black Acacia, English Hawthorn, Russian Olive, Olive, Red Gum, Tasmanian Blue Gum, Edible Fig, English Holly, Cherry Plum, Black Locust, Peruvian Peppertree, Brazilian Peppertree, Western Catalpa, Chinese Elm or Winged Elm; or the following fruit and nut trees: Almonds, Apples, Apricots, Avocados, Cherries, Chestnuts, Mandarins, Nectarines, Olives, Oranges, Peaches, Pears, Pecans, Persimmons, Pistachios, Plums or English Walnuts."

When Chapter 16.66 applies, a tree removal permit application, including a map showing the precise location, size, species, and dripline of all existing trees on or adjacent to the property, must be submitted and approved prior to tree removal.

According to CMC Section 16.66.085 (Tree Replacement), if a tree removal permit is granted, then it shall include a condition that the removed trees be replaced as follows:

a. On-Site. For every six inches removed, a new 15-gallon tree shall be planted on-site. Replacement trees shall be of similar species, unless otherwise approved by the urban forest manager, and shall be placed in areas dedicated for tree plantings. New plantings' survival shall be ensured for three years after the date of planting and shall be verified by the applicant upon request by the director. If any replacement trees die or fail within the first three years of their planting, then the applicant shall pay an in-lieu fee as established by a fee schedule adopted by the City Council.

b. Off-Site. If it is not feasible or desirable to plant replacement trees on-site, payment of an in lieu fee as established by a fee schedule adopted by the City Council shall be required.

c. Replacement trees do not receive credit as satisfying shade or street tree requirements otherwise mandated by this code.

Chapter 16.68 established a voluntary Heritage Tree program through which any resident may apply for protection of native oak or sycamore trees with a diameter at breast height of 36 inches or greater (for one trunk or cumulatively across multiple trunks).

Chapter 14.40 establishes standards and regulations related to trees within the City's right-of-way.

4.5.3 Impact Analysis

a. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ***(Less Than Significant)***

The database and literature review identified 29 special-status plant species known or with potential to occur within the SOI, identified in **Appendix B**. Most of these species are associated with grassland and vernal pool habitats present in the eastern portion of the SOI. Several others are associated with fresh emergent wetlands that may be present in drainages throughout the SOI, including locations where Project activities cross drainages. Direct impacts could include direct harm or mortality to individuals and to occupied habitat. Indirect impacts could occur if project construction results in changes to local hydrology or introduces invasive species. Impacts to these species are expected to be limited based on the nature of the projects associated with the 2025 SSMP but could occur.

In addition, the database and literature review identified 48 special-status animal species known or with potential to occur within the SOI, identified in **Appendix B.** Many of these species are associated with grassland, woodland, and vernal pool habitats present in the eastern portion of the SOI. Several others have potential to occur in riparian drainages throughout the SOI. Direct impacts could include direct harm or mortality to individuals and to occupied habitat. Indirect impacts could occur if project construction results in changes to local hydrology or introduces invasive species.

Noise, dust, and stormwater runoff impacts could occur during construction. Impacts to these species are expected to be limited based on the nature of the projects associated with the 2025 SSMP but could occur.

The Chico General Plan includes policies aimed at the preservation of native species (Policies OS-1.1, OS-2.1), compliance with State and federal regulations (Policy OS-1.2), reduction of excessive night lighting (Policy OS-1.3), protection of habitat (Policy OS-2.1.1), protection of creeks and riparian corridors (Policy OS-2.5), and protection of oak woodlands (Policy OS-2.6). In addition, individual projects contemplated under the 2025 SSMP would be evaluated for site-specific biological resources and would include appropriate mitigation as necessary to protect those resources from both direct and indirect impacts. The 2025 SSMP is a programmatic document and is intended to guide development of future 2025 SSMP projects within Chico and does not directly authorize any physical development or improvements. Therefore, adoption of the 2025 SSMP would result in a **less than significant** impact related to federally or State protected, special-status, or candidate species, and no mitigation is required.

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? ***(Less Than Significant)***

The literature and database review identified eight sensitive natural communities within the vicinity of the 2025 SSMP Area: Coastal and Valley Freshwater Marsh, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, Great Valley Oak Riparian Forest, Great Valley Willow Scrub, Northern Basalt Flow Vernal Pool, Northern Hardpan Vernal Pool, and Northen Volcanic Mud Flow Vernal Pool.

In CDFW's BIOS, Great Valley Mixed Riparian Forest and Great Valley Oak Riparian Forest have been mapped along portions of Big Chico Creek and Great Valley Mixed Riparian Forest has been mapped along portions of Butte Creek; however, it is likely that this mapping underrepresents the extent of sensitive natural communities within the SOI. For example, the USFWS's NWI shows fresh emergent wetlands and riparian forests associated with several drainages beyond the extend mapped in BIOS, and vernal pool complexes are generally mapped throughout the eastern foothill portions of the SOI.

The SOI intersects designated federal critical habitat for three species: vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), and Butte County meadowfoam (*Limnanthes floccosa ssp*. *californica*). All three critical habitats are mapped in grassland areas in the eastern foothill portion of the SOI where vernal pools have historically and are currently present. Impacts to critical habitats must be considered for only for projects implemented by federal agencies or for local and State projects that receive federal funding.

Direct impacts to sensitive natural communities could include loss of habitat. Indirect impacts could include introduction of nonnative invasive species into wetland habitats where they are not currently present, which could also the functions and values of the native habitat.

The Chico General Plan includes policies aimed at the preservation of habitats (Policies OS-1.1 and OS-2.1), protection of the foothill viewshed (Policy OS-2.4), protection of creeks and riparian corridors (Policy OS-2.5), protection of oak woodlands (Policy OS-2.6), and compliance with State and federal regulations (Policy OS-1.2). In addition, individual projects contemplated under the Draft Plan Update would be evaluated for site-specific biological resources and would include appropriate mitigation as necessary to protect those resources from both direct and indirect impacts. The 2025 SSMP is a programmatic document intended to guide development of identified 2025 SSMP projects within the City and does not directly authorize any physical development or improvements. Therefore, adoption of the 2025 SSMP would result in a **less than significant impact** related to riparian habitat or other natural communities, and no mitigation is required.

c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? ***(Less Than Significant Impact)***

Review of the CDFW's BIOS and the USFWS's NWI identified several aquatic features throughout the SOI, including numerous drainages that are crossed by currently proposed projects. The NWI further shows fresh emergent wetlands and riparian forests associated with many of these drainages. Each of these drainages appears to convey water into the Sacramento River, which is regulated by the USACE under CWA Section 404. As such, all naturally occurring relatively permanent waters within the SOI would also be subject to federal regulation. All waters subject to federal regulation are also subject to State regulation under CWA Section 401.

In addition, all surface waters not subject to federal regulation may be regulated by the State RWQCB under the Porter-Cologne Act. This would include all isolated wetlands, including the vernal pools present in the eastern portion of the SOI.

The CDFW also has regulatory authority over drainages exhibiting a definable bed, bank, and channel under California Fish and Game Code Section 1600 *et seq*.

Direct impacts to federally and State protected wetlands could include impairment of water quality during construction and loss of wetland habitat depending on the construction methods employed. Indirect impacts could include introduction of nonnative invasive species into wetland habitats where they are not currently present, which could also affect the functions and values of the native habitat.

The Chico General Plan includes policies aimed at the preservation of habitats (Policies OS-1.1 and OS-2.1), protection of creeks and riparian corridors (Policy OS-2.5), protection of surface water quality (Policy OS-3.1) and compliance with State and federal regulations (Policy OS-1.2). Implementation of the measures above, along with coordination with appropriate federal and State agencies, would address compliance with general plan policies. No additional measures are required.

Compliance with the policies above would ensure that any impacts to State or federally protected wetlands would be **less than significant**.

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? ***(Less Than Significant Impact)***

A review of mapped corridors and linkages in CDFW's BIOS corridors mapped by the University of California, Davis, within the SOI connecting the Sierra Nevada foothills to the Sacramento River corridor along Big Chico Creek through Chico and along the north side of Chico. The Sierra Nevada foothills are also mapped as an important north-south corridor along the entire stretch of the Central Valley. Within BIOS, CDFW has also mapped wildlife linkages throughout most of the foothill portion of the SOI. All riparian corridors have the potential to support wildlife movement, particularly those with vegetation that could provide wild animals cover and contain prey.

It is not known if any areas within the SOI serve as significant wildlife nursery sites; however, most native habitats, including riparian corridors through urban development, are expected to support breeding by a variety of wild animals, including some special-status species.

Direct impacts to wildlife movement and nursery sites could include loss of habitat as well as disruption of movement due to noise, vibration, and increased human presence during construction of the projects. Indirect impacts could result if animals are discouraged from utilizing these areas in subsequent years; however, given the anticipated short duration of construction of each project, such an impact is likely to be minimal.

The Chico General Plan includes policies aimed at the preservation of habitats (Policies OS-1.1 and OS-2.1), protection of creeks and riparian corridors (Policy OS-2.5), reduction of excessive night lighting (Policy OS-1.3), protection of habitat through acquisition, management, and maintenance (Policy OS-2.1), expansion of and preservation of creek corridors and greenways (Policies OS-2.2 and OS-2.5), preservation of the foothill viewshed (Policy OS-2.4), and protection of oak woodlands (Policy OS-2.6). Implementation of best management practices (BMPs) would also assist with a reduction in impacts and can be used to further comply with these policies and to reduce any potential impacts associated with the movement of species to **less than significant**. Some BMPs could be applied to each project within the 2025 SSMP and include, but are not limited to, the following:

Avoidance and Minimization Measures for Wildlife. The following measures shall be implemented for all projects:

1. **Work Timing**. All Project activities shall occur during daylight hours. If project construction must occur at night, construction lighting shall be positioned and shielded to prevent spillover into adjacent habitat.

2. **Vehicles.** Project-related vehicles shall observe a daytime speed limit of 20 miles per hour (mph) throughout the Project site except on City or County roads and State and federal highways. Off-road traffic outside of designated Project areas shall be prohibited.

3. **Daily Entrapment Inspections.** The following measures apply to all excavations (trenches, holes, sumps, etc.):

a. A qualified biologist shall inspect all open holes, sumps, and trenches at the beginning of each day for trapped covered species.

b. All excavations with sidewalls steeper than a 1:1 (45-degree) slope and that are between 2 and 8 feet deep shall be covered when workers or equipment are not actively working in the excavation (including cessation of work overnight) or shall have an escape ramp of earth or a nonslip material with a less than 1:1 (45-degree) slope.

c. The covering of all excavations with a greater than 1:1 (45-degree) slope of any depth with barrier material (e.g., hardware cloth) shall be designed such that animals are unable to dig or squeeze under the barrier and become entrapped. The outer 2 feet of excavation cover shall conform to solid ground so that gaps do not occur between the cover and the ground and secured with soil staples or similar means to prevent gaps.

d. Excavations that are covered for more than 1 day shall have the covers inspected daily by a qualified biologist to confirm that they are intact and functioning in accordance with the requirements above. Intact covers with no evidence of animal intrusion do not need to be lifted to inspect the excavation.

e. If any worker discovers that animals have become trapped, all construction shall cease in the immediate vicinity, and the qualified biologist shall be notified immediately. The animals shall be allowed to escape unimpeded, if possible, before the approved biologist authorizes continuation of covered activities. Capture and relocation shall not occur unless authorized by the USFWS and/or California Department of Fish and Wildlife (CDFW).

4. **Material Inspection.** All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for animals before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a special-status animal species is discovered inside a pipe, that section of pipe shall not be moved until the animal has left on its own. The appropriate resource agencies may be consulted if the animal does not leave, and relocation becomes necessary.

5. **Trash**. All food, trash, and other solid wastes items such as wrappers, cans, bottles, and food scraps shall be disposed of in securely closed containers and removed at least once per week from a construction or Project site.

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ***(Less Than Significant Impact)***

The Chico General Plan includes policies aimed at the preservation of habitats (Policies OS-1.1 and OS-2.1), protection of creeks and riparian corridors (Policy OS-2.5), compliance with State and federal laws (Policy OS-1.2), reduction of excessive night lighting (Policy OS-1.3), protection of habitat through acquisition, management, and maintenance (Policy OS-2.1), expansion of and preservation of creek corridors and greenways (Policies OS-2.2 and OS-2.5), preservation of the foothill viewshed (Policy OS-2.4), and protection of oak woodlands (Policy OS-2.6).

The City's Municipal Code also includes measures to protect tree species throughout the City on "*a) all undeveloped private property within the city which is 10,000 square feet or greater in size and (b) all property that requires discretionary approval of a land use entitlement,*" as well as within the City's right-of-way (CMC Chapters 16.66 and 14.40, respectively). The CMC outlines the specific tree species and sizes that are afforded protection and includes a variety of native species; nonnative and orchard trees are excluded. All projects that may impact a protected tree are required to prepare a tree protection plan for review and approval prior to obtaining permits (Section 16.66.110). For any protected trees that require removal, a tree removal permit (Section 16.66.060) and replacement planting (Section 16.66.085) are required. If on-site replacement is not possible, payment into an in-lieu fee program may be approved (Section 16.66.085). The CMC further proscribes restrictions for designated Heritage Trees (Chapter 16.68).

However, CMC Section 16.66.040 exempts city property and public utilities working public utility easements or public rights-of-way from the tree protection provision above.

Implementation of projects in the SOI would not conflict with local tree protection ordinances. No additional measures are required, and any impacts associated with conflicts with local policies would be **less than significant**.

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? ***(No Impact)***

The SOI is not located within the boundaries of an adopted HCP, NCCP or other approved local, regional, or State habitat conservation plan. The Butte County General Plan includes multiple references to the Butte Regional HCP and NCCP, which is still in the planning stages and has not yet been adopted and is therefore not applicable to the project. **No impact** would occur.

4.6 CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

4.6.1 Baseline Conditions

The following discussion and analyses are based on the findings included in the *Cultural Resources Constraints Analysis*[19] completed for the Project, which is included as **Appendix C**. The study area is the approximately 25,711 acres within city limits depicted on the United States Geological Survey (USGS) *Oroville 15'* (1942), *Richardson Springs 15'* (1944), *Chico 15'* (1949), Paradise *15'* (1953), *Nord 7.5'* (1969), *Richardson Springs 7.5'* (1969), *Ord Ferry 7.5'* (1969), *Hamlin Canyon 7.5'* (1969), *Chico 7.5'* (1978), and *Paradise West 7.5'* (1980) Mount Diablo Baseline and Meridian topographic maps.

4.6.2 Thresholds

A cultural resources record search was conducted and substantial numbers of both prehistoric and historic-period resources were formally documented and observed within the SOI. Although there has been sustained and severe disturbance from development within the SOI, sensitivity for resources should be assumed and can be conducted on a project-by-project basis.

4.6.3 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?; and

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? ***(Less Than Significant Impact)***

The term "historical resource" is defined by Section 15064.5 of the *State CEQA Guidelines* as follows:

> (1) A resource listed in or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (California Register) (Pub. Res. Code §5024.1, Title 14 California Code of Regulations [CCR], Section 4850 et seq.).

[19] LSA Associates, Inc. (LSA). 2024d. *Cultural Constraints Analysis, Sanitary Sewer Master Plan Update Project, City of Chico, Butte County, California.* December.

(2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code, § 5024.1, Title 14 CCR, Section 4852) including the following:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

B. Is associated with the lives of persons important in our past.

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possess high artistic values.

D. Has yielded, or may be likely to yield, information important in prehistory or history.

A "substantial adverse change" to a historical resource, according to PRC Section 5020.1(q), "means demolition, destruction, relocation, or alteration such that the significance of a historical resource would be impaired."

Data from the record search conducted at the Northeast Information Center (NEIC) indicate there have been 352 previous studies within the study area and 387 prehistoric and historic/built environment resources were formally documented within the project area. Seven additional resources were informally noted within the project area (refer to **Appendix C**).

Therefore, there is the potential for previously unknown pre-contact archaeological deposits to be unearthed during construction activities. Should Project excavation unearth intact archaeological deposits, a substantial adverse change to a historical resource would occur due to the partial or complete destruction of the resource. This destruction would undermine the integrity of the resource, such that it would no longer be eligible for listing in the California Register of Historical Resources (CRHR). As such, Project ground-disturbing activities could have a substantial adverse change on buried archaeological deposits that qualify as historical resources, as defined in *State CEQA Guidelines* Section 15064.5, and could materially impair pre-contact archaeological deposits.

Any future 2025 SSMP projects would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines*. In addition, individual projects contemplated under the 2025 SSMP would be evaluated for site-specific historic resources and would include compliance with the City Historic Preservation Ordinance and Historic Preservation Program Guidelines and archaeological resources, and appropriate mitigation as necessary to address impacts related to historic resources. Therefore, adoption of the Draft Plan Update would result in a **less than significant impact** in regard to historic resources, and no mitigation is required.

*c. Would the project disturb any humans remains, including those interred outside of formal cemeteries? **(Less Than Significant)***

Disturbing human remains could violate the State's Health and Safety Code as well as destroy the resource. Although human remains are not anticipated in previously disturbed area, in the event that human remains are discovered during construction activities, requires compliance with the State's Health and Safety Code for the treatment of human remains. The 2025 SSMP is a programmatic document intended to guide future 2025 SSMP projects within Chico and does not directly authorize any physical development or improvements. Any future physical park and facility improvements would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines.* In addition, individual projects contemplated under the 2025 SSMP would be evaluated for site-specific cultural resources and would include appropriate mitigation as necessary to address impacts to human remains. Therefore, adoption of the Project would result in a **less than significant impact** in regard to impacts to human remains, and no mitigation is required.

4.7 ENERGY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

4.7.1 Baseline Conditions

Within Chico, Pacific Gas and Electric (PG&E) is the main provider of both electric service and natural gas. Both electricity and natural gas usage in California varies substantially by land use type, construction equipment and materials used, and energy efficiency of electric-consuming devices within buildings and an LED Street Light Turn-Key Replacement Program saving approximately 519,725.75 kilowatt hours (kWh) and 1,586,946 (kWh) of energy use each year, respectively.[20] The average electricity customer within the City uses approximately 10,512 kWh per year.[21]

Natural gas service in the City is also provided by PG&E, supplied to the region through Hershey Station in Colusa County. In Butte County, Wild Goose Storage Inc. operates an underground natural gas storage facility that receives gas through a 25-mile pipeline between the main PG&E pipeline in Colusa County and the facility. The facility stores natural gas in an underground rock formation that previously produced natural gas and uses compressors to inject gas into the reservoir. There it is stored, withdrawn, and delivered to customers through PG&E's natural gas transmission and distribution system.

4.7.2 Thresholds

4.7.2.1 City of Chico General Plan 2030

Sustainability Element.

- Goal SUS-5: Increase energy efficiency and reduce non-renewable energy resource consumption citywide.
    - Policy SUS-5.1 (Energy Efficient Retrofits): Promote energy efficient retrofit improvements in existing buildings.

[20] Chico Sustainability. n.d. Energy Progress and Projects. Website: https://chicosustainability.org/climate-action-and-energy/energy-progress-projects.php (accessed October 2024).

[21] EnergySage, Inc. 2024. Website: https://www.energysage.com/local-data/electricity-cost/ca/butte-county/chico/#:~:text=Based%20on%20the%20intensity%20and,of%2010512%20kWh%20per%20year (accessed December 2024).

- Action SUS-5.1.2 (PG&E and Education): Coordinate with PG&E to promote public education about energy efficiency and conservation methods and encourage them to continue providing more energy from renewable sources.

4.7.3 Impact Analysis

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation? ***(Less Than Significant Impact)***

Operational Energy Use. The existing Sanitary Sewer System is made up of gravity mains, manholes, force mains, and lift stations. Of these components, both the lift stations and force mains utilize energy that is provided by PG&E. Lift stations contain both control systems and pumps that utilize electricity. Currently, there are 36 lift stations, 18 of which are owned by the City, and approximately 4.9 miles of force mains ranging from 2 inches to 12 inches in diameter.

Based on the Lift Station Assessment prepared by Carollo in May 2024,[22] the existing sewer system contains several lift station instrumentation assets that utilize electricity, including electrical conduits, electrical covering, control panels, electrical boxes and utility meters, bubbler units, and compressors. Currently, there are no appropriate repair options for electrical components that are recommended for replacement. According to the Lift Station Assessment, electrical components in the existing sanitary sewer system have had the most recent upgrades, utilizing cellular radios for communication and new control panels. All 18 City-owned lift stations pump to existing polyvinyl chloride (PVC) force mains.

The Project would improve the electrical components of lift stations, including the implementation of intrinsically safe relays for safety and reliability, and the replacement of station controllers, bubblers, and variable frequency drives. In addition, the Project would implement build-out of the Bell Muir Force Main and Bell Muir Lift Station. All planned improvements would be relatively minor and would comply with the policies regarding energy resources listed above, including energy efficiency and conservation requirements. Compliance with General Plan policies would ensure that any construction or operation of planned improvements would not use equipment or fuel in a wasteful or inefficient manner, and all improvements would be designed to be efficient. Therefore, the Project would provide the same or better energy efficiency uses, and there would be minimal effect on wasteful, inefficient, or unnecessary consumption of energy resources. Impacts would be **less than significant.**

Construction Energy Use. Construction of the Project would require energy for the manufacture and transport of building materials, preparation of the site for grading activities, and infrastructure improvements. Petroleum fuels (e.g., diesel and gasoline) would be the primary sources of energy for these activities. Energy usage on the Project site during construction would be temporary in nature and would be relatively small in comparison to typical development projects. Therefore, impacts to energy resources during construction would be **less than significant**.

[22] Carollo. 2024. *City of Chico Sanitary Sewer Master Plan Lift Station Assessment.*

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency? ***(Less Than Significant Impact)***

The existing sanitary sewer system contains lift stations and force mains that utilize electricity provided by PG&E. The Project proposes improvements to the electrical components of lift stations and two new improvement projects in Bell Muir that would utilize electricity. All proposed improvements would be relatively minor, and the Project would comply with General Plan policies that would ensure the Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Any impacts would be **less than significant**.

4.8 GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii. Strong seismic ground shaking?	☐	☐	☐	☒
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

4.8.1 Baseline Conditions

The City and its SOI are located within the great valley Geomorphic Province, which extends 400 miles north to south and 60 miles east to west. This area is encompassed by metamorphic, volcanic, and granitic rock types. Sedimentary deposits and an underlay of granitic rock characterize the area, with deposits ranging from approximately 154 million years old to recent. The topography of the Project area varies from relatively gentle sloped terrain in the west to increasingly hilly terrain in the east, with an average elevation of approximately 230 feet amsl.

The Seismic Hazards Zonation program of the California Geologic Survey (CGS) categorizes Butte County as a seismic hazard zone, resulting from earthquake faults in the county and outside of the county. These faults could cause potentially damaging ground shaking in the Project area. However, the Project areas do not contain any active faults. In Butte County, areas parallel to the Sacramento River contain clean sand layers with low relative densities and are estimated to have generally high liquefaction potential. The Project area has a low to moderate risk for liquefaction, with low potential in the eastern portions and moderate potential within City limits and to the west. While no land subsidence has been recorded in Butte County, areas of heavy groundwater withdrawal extending 2 miles north and south of the City are considered potential subsidence hazards.

Butte County has a history of landslides, most of which occur in areas that have experienced previous landslides. High-landslide risk areas are in the mountainous central area of the county and in the slopes around flat uplands. The remaining portions of Butte County have moderate to low landslide potential. Most of the project area has moderate to low landslide potential, apart from the eastern portion in the foothills, which has a moderate to high potential for landslides.

The most prominent soil types in the Project area are Bosquejo clay, Almendro loam, and Doemill-Jokerst complex. The erosion rating for most soil types found in the Project area is slight, apart from soils found in the eastern foothills, where rock and cliff outcrop type soils have very severe to severe ratings. The Project area is in a region where expansive soils exist with moderate shrink-swell potential. Within Butte County, these soils occur adjacent to streams, river valleys, and steep mountain slopes. In the Project area, many soils have moderate to high shrink-swell potential, including the most abundant soil type, Bosquejo clay. In addition, the Project area contains possible locations for lateral spreading along the banks of California Park Lake in southeast Chico, the Lindo Channel, and the Big Chico, Little Chico, Sycamore, Comanche, and Butte creeks flowing through the City.

Discharge from individual septic systems has been cited by the RWQCB as a source of soil and groundwater nitrate contamination in the Project area. Nitrate contamination causes various health concerns that can be transmitted through drinking water. In the Project area, average residential densities of approximately four or more dwelling units per acre exceed the capacity of the soil and receiving waters to assimilate nitrogen, requiring sewering and nitrate elimination or reduction strategies.

The Project area is underlain by various geological formations including the Tuscan Formation, the Chico Formation, the Red Bluff Formation, and the Modesto Formation. Groundwater in the Sacramento Valley Groundwater Basin is contained primarily within the pore spaces of the reworked sand and gravel layers of the Tuscan formation. The Chico Formation occurs in both the Big Chico Creek and Little Chico Creek canyons and along Butte Creek and contains fossils that were deposited by a warm shallow sea around 90 million years ago.

4.8.2 Thresholds

4.8.2.1 Nitrate Compliance Plan

In the 1980s, the RWQCB recognized that on-site sewage disposal systems were contributing to elevated nitrate levels in groundwater in the Chico area and initially issued a Prohibition Order requiring all existing septic systems in the Chico's urban area to convert to a community sewer system. In response, Butte County, the City, and the RWQCB developed strict standards limiting any new systems, the creation of a Joint Powers Authority, and a plan to finance the conversion of existing septic systems to the City sewer system. In 2001 the Butte County Board of Supervisors adopted the Nitrate Compliance Plan[23], which superseded the previous Nitrate Action Plan. The Nitrate Compliance Plan enacts strict standards for density requirements for new septic systems.

[23] County of Butte. 2000. Chico Urban Area Nitrate Compliance Plan. Website: https://www.buttecounty.net/DocumentCenter/View/1524/Chico-Urban-Area-Nitrate-Compliance-Plan-Final---2000-PDF (accessed October 2024).

The standards allow for conventional septic systems only in narrowly defined circumstances, call for the elimination of existing systems in most of the Chico's urban area, and identify a financing mechanism to do this. The plan also provides for case-by-case evaluation of nonresidential septic systems and recognizes that sewer connection may not be practical or feasible in all cases.

4.8.2.2 City of Chico Municipal Code/Grading Ordinance

Chapter 16R.22 of the CMC contains the City's grading standards. The standards specify that the maximum permanent rate of sediment loss after completion of a project should not exceed the natural erosion rate that occurred prior to the grading project. In addition, if excessive erosion occurs from the project, erosion and sediment control measures are required to be immediately implemented to reduce erosion to allowable levels. The standards also require revegetation and slope stabilization to prevent erosion of slopes.

The City's Grading Ordinance can be found in Chapter 16 of the CMC. The ordinance requires that when grading is performed as part of a project for which an EIR, MND, or other environmental document was prepared, the grading must comply with all applicable mitigation measures identified in that document and imposed on the project as conditions of approval.

4.8.2.3 City of Chico General Plan 2030

Safety Element.

- Goal S-3: Protect lives and property from seismic and geologic hazards.
    - Policy S-3.1: (Potential Structural Damage): Prevent damage to new structures caused by seismic, geologic, or soil conditions.

4.8.3 Impact Analysis

a. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issues by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ***(No Impact)***

Fault rupture is generally expected to occur along active fault traces that have exhibited signs of recent geological movement (i.e., within the last 11,000 years). Alquist-Priolo Earthquake Fault Zones delineate areas around active faults with potential surface fault rupture hazards that would require specific geological investigations prior to approval of certain kinds of development within the delineated area. There are no mapped faults within or adjacent to the Project area, and the Project site is not located within an Alquist-Priolo Fault Zone.[24] All faults located in Butte County are

[24] California Department of Conservation (DOC) California Geologic Survey (CGS). 2021. *Earthquake Zones of Required Investigation.* Website: https://maps.conservation.ca.gov/cgs/EQZApp/app/ (accessed October 2024).

considered short and unlikely to create damaging seismic events**. Figure 4.8-1, Active Faults,** illustrates all active faults in the region. Therefore, the Project would not directly or indirectly cause substantial adverse effects related to fault rupture, and there would be **no impact**.

ii. Strong seismic ground shaking? ***(No Impact)***

As discussed above, the Project area is considered to have a low probability of seismic ground shaking as there are no active faults within the Project area. The intensity of ground shaking would depend on the characteristics of the fault, the distance from the fault, the earthquake magnitude and duration, and site-specific geologic conditions. Faults located outside the Project area are relatively short and would be unlikely to produce strong ground shaking. All proposed improvements would comply with the applicable federal, State, and local laws, codes, and regulations to ensure any damage related to seismic shaking would be mitigated. Therefore, the Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic ground shaking, and there would be **no impact**.

iii. Seismic-related ground failure, including liquefaction? ***(Less Than Significant Impact)***

The Project is located in an area with a probability of seismic ground shaking with no known active faults. However, Butte County is in a seismic hazard zone that could potentially experience seismic ground shaking. Butte County does contain areas susceptible to liquefaction, located parallel to the Sacramento River in areas with clean sand layers with low relative densities. These soils are estimated to have generally high liquefaction potential. Within the Project area, low to moderate liquefaction risk is present. Eastern portions of the Project area are at low risk, while areas within the City limits and to the west have moderate potential.

The Project proposes improvements that would require ground-disturbing activities but would not be located within any high hazard liquefaction zones. Any improvements would be required to comply with the standards set forth in the Seismic Hazards Mapping Act, the CBC, and the City's General Plan. Therefore, impacts related to liquefaction would be considered **less than significant**.

v. Landslides? ***(Less Than Significant Impact)***

A landslide generally occurs on relatively steep slopes and/or on slopes underlain by weak materials. The Project site is relatively level and is not located next to any slopes. The Project is within Butte County, which has a history of landslides. High landslide risk areas are in the mountainous central area of the county, and in the slopes around flat uplands. The remaining portions of Butte County have moderate to low landslide potential. Most of the Project area has moderate to low landslide potential, apart from the eastern portion in the foothills, which has a moderate to high potential for landslides.

Although the Project would have some ground-disturbing activities, it would not increase the risk of loss, injury, or death due to landslides. Any proposed improvements would comply with the standards set forth in the Seismic Hazards Mapping Act, the CBC, and the City's General Plan.

The Seismic Hazards mapping Act requires the City to identify seismic hazard zones and utilize site-specific information in its land use and permitting processes to formulate mitigation measures in potentially hazardous areas, including landslide areas. Similarly, compliance with the CBC would mitigate potential impacts due to seismic hazards, including landslides. The City's General Plan Policy S-3.1 would require all new infrastructure to prevent damage caused by seismic conditions, including landslides. Therefore, the impacts related to landslides would be considered **less than significant**.

b. Would the project result in substantial soil erosion or the loss of topsoil? ***(Less Than Significant Impact)***

The NRCS identified the most prominent soil types in the Project area as Bosquejo clay, Almendro loam, and Doemill-Jokerst complex. Soils can be classified based on the hazard of soil loss from erosion, ranging from slight, moderate, and severe to very severe. The erosion rating for most soil types found in the Project area is slight, apart from soils found in the eastern foothills, where rock and cliff outcrop-type soils have very severe to severe ratings. In these areas, development is limited due to safety.

The Project proposes improvements that would require ground-disturbing activities. Portions of the Project area would be in severe and very severe erosion risk zones, while the remainder of the Project area would be located within slight erosion risk zones. Therefore, any new infrastructure in the Project area would have the potential to result in soil erosion or the loss of topsoil.

Ground-disturbing activities could expose soils to erosion processes, and the extent of erosion would vary depending on slope steepness and stability, vegetation cover, concentration of runoff, and weather conditions. Dischargers whose projects disturb 1 or more acres of soils or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit) Order 2022-0057-DWQ (NPDES No. CAS000002), effective September 1, 2023. Construction activities subject to this permit include clearing, grading, and disturbances to the ground, such as stockpiling, or excavation, but do not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. The proponent would be required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer (QSD).

In addition, the City's grading standards (Chapter 16R.22 of the CMC) require erosion and sediment control measures to be immediately implemented to reduce erosion to allowable levels if excessive erosion occurs. These standards also require revegetation and slope stabilization to prevent the erosion of slopes. The City's Grading Ordinance requires a valid grading permit for any grading work in Chico and provides for inspection and enforcement to ensure compliance with grading regulations. Therefore, impacts related to soil erosion would be considered **less than significant**.

c. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse? ***(Less Than Significant Impact)***

As discussed previously, portions of the Project area are within high landslide risk zones and moderate to low liquefaction zones. The Project area contains possible locations for lateral spreading along the banks of California Park Lake in southeast Chico, the Lindo Channel, and the Big Chico, Little Chico, Sycamore, Comanche, and Butte creeks flowing through the City. While no land subsidence has been recorded, areas of heavy groundwater withdrawal extending 2 miles north and south of the City are considered potential subsidence hazards.

The Project proposes improvements that would require ground-disturbing activities. Portions of the Project area would be located on a geologic unit or soil that could potentially become unstable and result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse.

The City's General Plan Policy S-3.1 requires all new development to prevent damage caused by seismic conditions, including landslides, lateral spreading, subsidence, and liquefaction. Therefore, impacts related to unstable soils would be considered **less than significant**.

d. Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property? ***(Less Than Significant Impact)***

The Project area is in a region where expansive soils exist with moderate shrink-swell potential. These soils can occur near streams, river valleys, and steep mountain slopes. In the Project area, many soils have moderate to high shrink-swell potential, including the most abundant soil type, Bosquejo clay. **Figure 4.8-2, Expansive Soil Areas,** illustrates the distribution of expansive soils in the Project area.

The Project proposes improvements that would require ground-disturbing activities. Compliance with the CBC would reduce potential impacts due to geologic hazards, requiring applicable development projects to incorporate site-specific and citywide measures that describe appropriate actions to reduce potential impacts resulting from soil shrink-swell. The City's General Plan policies would require development in areas with highly expansive soils to require appropriate studies and structural precautions through project review. Therefore, impacts related to expansive soils would be considered **less than significant**.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water? ***(No Impact)***

Discharge from individual septic systems has been cited by the RWQCB as a source of soil and groundwater nitrate contamination in the Project area, where average residential densities of approximately four or more dwelling units per acre exceed the capacity of the soil and receiving waters to assimilate nitrogen, requiring nitrate elimination or reduction strategies.

The City has been in the process of phasing out septic tanks and connecting all systems to the existing sanitary sewer system. The Project intends to improve the existing sanitary sewer system, ensuring that the wastewater disposal system would be more efficient. However, the Project would be required to comply with the standards set forth in the City's Nitrate Action Plan.

The Chico Nitrate Action Plan and policies for sewer service control regulate septic tank usage in the City, with strict standards that limit any new systems, enact strict standards for density requirements for new septic systems, and only allow for septic systems in narrowly defined circumstances. No septic tanks or alternative wastewater disposal systems are proposed as part of the Project. Therefore, impacts related to septic tanks would be considered **less than significant**.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? ***(Less Than Significant)***

The Project area is underlain by various geological formations, including the Chico Formation, the Butte Formation, and the Tehama Formation. The Chico Formation occurs in both the Big Chico Creek and Little Chico Creek canyons and along Butte Creek and contains fossils that were deposited by a warm shallow sea around 90 million years ago.

The Project proposes improvements that would require ground-disturbing activities. Therefore, there is potential to find paleontological resources during ground-disturbing activities. Any proposed improvements would be required to comply with the standards set forth in the Paleontological Resources Preservation, Omnibus Public Lands Act, California PRC Section 5097.5, and California PRC Section 5097.5. In addition, California PRC Section 5097.5 and California PRC Section 5097.5 regulate the discovery of nonrenewable resources, including fossils, and compliance would ensure that all paleontological resources found would not be removed, destroyed, injured, or defaced.

Site-specific paleontological resource assessment has not been conducted for the Project area. Grading, excavation, or other ground-disturbing activities during construction could damage previously undiscovered fossils. Some areas are considered potentially sensitive for the presence of paleontological resources based on the underlying geologic formation. The Project and its vicinity may have surface deposits that consist of older Quaternary Alluvium and terrace deposits, and paleontological resources have been found in these deposits in other areas of the City. Excavation beyond fill materials into the underlying older Quaternary Alluvium, terrace deposits, and older sedimentary deposits could uncover fossil remains. Site-specific geologic formation study and further paleontological investigation is necessary to identify the possibility of unique paleontological resources within the Project area.

The 2025 SSMP is a programmatic document and is intended to guide development of future 2025 SSMP projects within the City and does not directly authorize any physical development or improvements. Individual projects contemplated under the Draft Plan Update would be evaluated for site-specific impacts to paleontological resources and would include appropriate mitigation as necessary to address impacts related to paleontological resources. Therefore, adoption of the 2025 SSMP would result in a **less than significant impact** related to unique paleontological resources or sites or unique geologic features, and no mitigation is required.

4.9 GREENHOUSE GAS EMISSIONS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

4.9.1 Baseline

Greenhouse gases (GHGs) are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced global climate change are:

- Carbon dioxide (CO_2);
- Methane (CH_4);
- Nitrous oxide (N_2O);
- Hydrofluorocarbons (HFCs);
- Perfluorocarbons (PFCs); and
- Sulfur hexafluoride (SF_6).

Over the last 200 years, humans have caused substantial quantities of GHGs to be released into the atmosphere. These extra emissions are increasing GHG concentrations in the atmosphere and enhancing the natural greenhouse effect, believed to be causing global warming. While human-made GHGs include naturally occurring GHGs such as CO_2, CH_4, and N_2O, some gases, like HFCs, PFCs, and SF_6, are completely new to the atmosphere.

Certain gases, such as water vapor, are short-lived in the atmosphere. Others remain in the atmosphere for significant periods of time, contributing to climate change in the long term. Water vapor is excluded from the list of GHGs above because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

These gases vary considerably in terms of Global Warming Potential (GWP), a concept developed to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and length of time that the gas remains in the atmosphere ("atmospheric lifetime"). The GWP of each gas is measured relative to CO_2, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO_2 over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO_2 equivalents" (CO_2e).

State CEQA Guidelines Section 15064(b) provides that the "determination of whether a project may have a significant effect on the environment calls for careful judgment on the part of the public agency involved, based to the extent possible on scientific and factual data," and further states that an "ironclad definition of significant effect is not always possible because the significance of an activity may vary with the setting."

Appendix G of the *State CEQA Guidelines* includes significance thresholds for GHG emissions. A project would normally have a significant effect on the environment if it would do either of the following:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Currently, there is no statewide GHG emissions threshold that has been used to determine the potential GHG emissions impacts of a project. Threshold methodology and thresholds are currently developed and revised by air districts in California.

4.9.2 Thresholds

4.9.2.1 United States Environmental Protection Agency

The United States has historically had a voluntary approach to reducing GHG emissions. However, on April 2, 2007, the United States Supreme Court ruled that the USEPA has the authority to regulate CO_2 emissions under the CAA. While there currently are no adopted federal regulations for the control or reduction of GHG emissions, the USEPA commenced several actions in 2009 to implement a regulatory approach to global climate change.

This includes the 2009 USEPA final rule for mandatory reporting of GHGs from large GHG emission sources in the United States. Additionally, the USEPA Administrator signed an endangerment finding action in 2009 under the CAA, finding that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare, and that the combined emissions from motor vehicles cause and contribute to global climate change, leading to national GHG emission standards.

4.9.2.2 California Air Resources Board

CARB is the lead agency for implementing climate change regulations in the State. Since its formation, CARB has worked with the public, the business sector, and local governments to find solutions to California's air pollution problems. Key efforts by the State are described below.

4.9.2.3 Assembly Bill 32 (2006), California Global Warming Solutions Act

California's major initiative for reducing GHG emissions is AB 32, passed by the State legislature on August 31, 2006. This effort aims at reducing GHG emissions to 1990 levels by 2020. CARB has established the level of GHG emissions in 1990 at 427 million metric tons (MMT) of CO_2e. The emissions target of 427 MMT requires the reduction of 169 MMT from the State's projected

business-as-usual 2020 emissions of 596 MMT. AB 32 requires CARB to prepare a Scoping Plan that outlines the main State strategies for meeting the 2020 deadline and to reduce GHGs that contribute to global climate change. The Scoping Plan was approved by CARB on December 11, 2008, and contains the main strategies California will implement to achieve the reduction of approximately 169 MMT CO_2e, or approximately 30 percent, from the State's projected 2020 emissions level of 596 MMT CO_2e under a business-as-usual scenario (this is a reduction of 42 MMT CO_2e, or almost 10 percent from 2002–2004 average emissions). The Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory. The Scoping Plan calls for the largest reductions in GHG emissions to be achieved by implementing the following measures and standards: Improved emissions standards for light-duty vehicles (estimated reductions of 31.7 MMT CO_2e);

- The Low-Carbon Fuel Standard (15.0 MMT CO_2e);
- Energy efficiency measures in buildings and appliances and the widespread development of combined heat and power systems (26.3 MMT CO_2e); and
- A Renewable Portfolio Standard (RPS) for electricity production (21.3 MMT CO_2e).

CARB approved the First Update to the Climate Change Scoping Plan (First Update) on May 22, 2014. The First Update identifies opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low-carbon investments. The First Update defines CARB climate change priorities until 2020 and sets the groundwork to reach long-term goals set forth in Executive Orders (EOs) S-3-05 and B-16-2012. The First Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals as defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use. CARB released a second update to the Scoping Plan, the 2017 Scoping Plan,[25] to reflect the 2030 target set by EO B-30-15 and codified by Senate Bill (SB) 32.

The 2022 Scoping Plan[26] was approved in December 2022 and assesses progress toward achieving the SB 32 2030 target and laying out a path to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for clean technology, energy deployment, natural and working lands, and others, and is designed to meet the State's long-term climate objectives and support a range of economic, environmental, energy security, environmental justice, and public health priorities.

4.9.2.4 Senate Bill 375 (2008)

Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, CARB approved GHG reduction targets in February 2011 for

[25] California Air Resources Board (CARB). 2017a. *California's 2017 Climate Change Scoping Plan*. November.
[26] CARB. 2022a. *2022 Scoping Plan*. November 16. Website: https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed February 2024).

California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). CARB may update the targets every 4 years and must update them every 8 years. MPOs, in turn, must demonstrate how their plans, policies and transportation investments meet the targets set by CARB through Sustainable Community Strategies (SCSs). The SCSs are included with the Regional Transportation Plan (RTP), a report required by State law. However, if an MPO finds that its SCS will not meet the GHG reduction target, it may prepare an Alternative Planning Strategy (APS). The APS identifies the impediments to achieving the targets.

4.9.2.5 Executive Order B-30-15 (2015)

Governor Jerry Brown signed EO B-30-15 on April 29, 2015, which added the immediate target of:

- GHG emissions should be reduced to 40 percent below 1990 levels by 2030.

All State agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the AB 32 Scoping Plan to reflect the 2030 target and, therefore, is moving forward with the update process. The midterm target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue reducing emissions.

4.9.2.6 Senate Bill 350 (2015) Clean Energy and Pollution Reduction Act

SB 350, signed by Governor Brown on October 7, 2015, updates and enhances AB 32 by introducing the following set of objectives in clean energy, clean air, and pollution reduction for 2030:

- Raise California's RPS from 33 percent to 50 percent; and
- Increase energy efficiency in buildings by 50 percent by the year 2030.

The 50 percent renewable energy standard will be implemented by the California Public Utilities Commission (CPUC) for private utilities and by the CEC for municipal utilities. Each utility must submit a procurement plan showing it will purchase clean energy to displace other nonrenewable resources. The 50 percent increase in energy efficiency in buildings must be achieved using existing energy efficiency retrofit funding and regulatory tools already available to State energy agencies under existing law. The addition made by this legislation requires State energy agencies to plan for and implement those programs in a manner that achieves the energy efficiency target.

4.9.2.7 Senate Bill 32, California Global Warming Solutions Act of 2016, and Assembly Bill 197

In summer 2016, the Legislature passed, and the Governor signed, SB 32 and AB 197. SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown's April 2015 EO B-30-15. SB 32 builds on AB 32 and keeps California on the path toward achieving its 2050 objective of reducing emissions to 80 percent below 1990 levels, consistent with an Intergovernmental Panel on Climate Change (IPCC) analysis of the emissions trajectory that would stabilize atmospheric GHG concentrations at 450 parts per million CO_2e and reduce the likelihood of catastrophic impacts from climate change.

The companion bill to SB 32, AB 197, provides additional direction to CARB related to the adoption of strategies to reduce GHG emissions. Additional direction in AB 197 meant to provide easier public access to air emissions data that are collected by CARB was posted in December 2016.

4.9.2.8 Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which raises California's RPS requirements to 60 percent by 2030, with interim targets, and 100 percent by 2045. The bill also establishes a State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

4.9.2.9 Executive Order B-55-18

EO B-55-18, signed September 10, 2018, sets a goal "to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter." Executive Order B-55-18 directs CARB to work with relevant State agencies to ensure future scoping plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_2e from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.Assembly Bill 1279. AB 1279 was signed in September 2022 and codifies the State goals of achieving net carbon neutrality by 2045 and maintaining net negative GHG emissions thereafter. This bill also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels by 2045 and directs CARB to work with relevant State agencies to achieve these goals.

4.9.2.10 BCAQMD CEQA Handbook

The BCAQMD has not established a threshold of significance for GHGs. However, the BCAQMD's CEQA Air Quality Handbook[27] provides guidance in determining whether a project will have a significant impact related to climate change. If the lead agency jurisdiction has adopted a qualified Climate Action Plan (CAP) or General Plan goals and policies with regard to GHGs, the environmental review should base its analysis on the provisions of those documents. If the lead agency jurisdiction has not adopted a CAP or General Plan goals and policies, then the BCAQMD recommends that lead agencies consider a project's total emissions in relation to the most current codified State climate goals. In addition, lead agencies within the BCAQMD may also reference GHG reduction strategies, targets, and thresholds established by other jurisdictions, such as the most current State Scoping Plan.

[27] BCAQMD. *2024. CEQA Air Quality Handbook -Guidelines for Assessing Air Quality and Greenhouse Gas Impacts for Projects Subject to CEQA Review.* March 28. Website: https://www.bcaqmd.org/files/583f235c2/CEQA-Handbook-2024-Update-Final.pdf (accessed December 2024).

4.9.2.11 City of Chico General Plan 2030

Open Space and Environment Element.

- Policy OS-4.3 (Greenhouse Gas Emissions): Implement and update, as necessary, the Climate Action Plan to achieve incremental greenhouse gas emissions reductions.

4.9.2.12 City of Chico Climate Action Plan Update

Chico's CAP[28] includes a suite of strategies, measures, and actions that have been designed to achieve GHG emissions reductions in line with the City's 2030 emissions target. In addition, the City's CAP will guide the City of Chico toward reducing GHG emissions consistent with the state goal to reduce GHG emissions 40 percent below 1990 levels by 2030, established by SB 32, and will make substantial progress toward the State's long-term goal of carbon neutrality by 2045, established by EO B-55-18. In addition, this CAP will fulfill the requirements of CEQA Guidelines Section 15183.5(b) to be a qualified GHG reduction plan. The City's CAP adopted a GHG emissions target for 2030—a required part of a CEQA "qualified" CAP—and a long-term GHG emissions goal for 2045. The GHG emission targets include a per capita emission threshold of 2.76 metric tons (MT) of CO_2e per person by 2030 and a zero per capita emission threshold by 2045, consistent with the goal of carbon neutral emissions.

4.9.3 Impact Analysis

a. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? ***(Less Than Significant Impact)***

This section discusses the proposed Project's potential impacts related to the release of GHG emissions for both construction and project operation. Section 15064.4 of the *State CEQA Guidelines* states that: "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." In performing that analysis, the lead agency has discretion to determine whether to use a model or methodology to quantify GHG emissions, or to rely on a qualitative analysis or performance-based standards. In making a determination as to the significance of potential impacts, the lead agency then considers the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Neither the City of Chico nor the BCAQMD has developed or adopted numeric GHG significance thresholds. Therefore, this analysis evaluates the GHG emissions based on the Project's consistency with the City's CAP and State GHG reduction goals.

[28] City of Chico. 2021. *Climate Action Plan Update.* Website: https://chico.ca.us/documents/Government/Boards--Commissions/Climate-Action-Commission/Climate-Action-Plan-Update/chico-cap-update_final-draft-complete.pdf (accessed December 2024).

Construction Activities. Construction activities, such as site preparation, site grading, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew would produce combustion emissions from various sources. During construction activities, GHGs would be emitted through the operation of construction equipment and from worker vehicles, which typically use fossil-based fuels to operate. The combustion of fossil-based fuels creates GHGs such as CO2, CH4, and N2O. Furthermore, CH4 is emitted during the fueling of heavy equipment. Exhaust emissions from on-site construction activities would vary daily as construction activity levels change.

The BCAQMD does not have an adopted threshold of significance for construction-related GHG emissions. However, lead agencies are encouraged to quantify and disclose GHG emissions that would occur during construction. Using CalEEMod, it is estimated that construction of the proposed Project would generate a total of approximately 6,499.7 MT CO2e. When considered over the 30-year life of the Project, the total amortized construction emissions for the proposed Project would be 216.7 MT CO2e per year. As such, construction of the proposed Project would not generate GHG emissions that would have a significant impact on the environment, and construction-related impacts would be less than significant.

Operational Emissions. Long-term GHG emissions are typically generated from mobile sources (e.g., cars, trucks, and buses), area sources (e.g., maintenance activities and landscaping), indirect emissions from sources associated with energy consumption, waste sources (landfilling and waste disposal), and water sources (water supply and conveyance, treatment, and distribution). Mobile-source GHG emissions would include Project-generated vehicle and truck trips to and from the Project site. Area-source emissions would be associated with activities such as landscaping and maintenance on the Project site. Waste-source emissions are typically generated by the energy generated by landfilling and other methods of disposal related to transporting and managing Project-generated waste.

As discussed in Section 4.4, Air Quality, the proposed Project would replace and upgrade sewer facilities. Operation and maintenance associated with the proposed Project would remain the same as currently occurs for the existing sewer facilities. As described in Section 4.18, Transportation, no additional trips are anticipated due to implementation of the proposed Project. As such, the proposed Project would not result in a significant increase in the generation of vehicle trips or VMT that would increase GHG emissions. The proposed Project would not be a substantial source of energy-, area-, waste-, or water-source emissions. Therefore, the proposed Project would not generate GHG emissions that would have a significant impact on the environment. Therefore, impacts would be **less than significant**.

b. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? ***(Less Than Significant Impact)***

Section 15064.4 of the *State CEQA Guidelines* states that: "A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project." In performing that analysis, the lead agency has discretion to determine whether to use a model or methodology to quantify GHG emissions or to rely on a qualitative analysis or performance-based standards. In making a

determination as to the significance of potential impacts, the lead agency then considers the extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting, whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project, and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

As discussed in the preceding section, the City adopted a local CAP. The City's CAP meets the requirements for a Qualified Greenhouse Gas Reduction Strategy and was designed to streamline environmental review of future development projects, consistent with *State CEQA Guidelines* Section 15183.5(b), by showing that the City would achieve emission reduction goals in line with State goals and targets codified in AB 32 and SB 32 for the years 2030 and 2045. The City's CAP is designed to provide discrete actions to operationalize the General Plan policies that help with GHG reduction. The following discussion evaluates the proposed Project with the GHG targets of the City's CAP.

The City's CAP has adopted GHG per capita emission targets. These targets were developed in order to provide consistency with the State's 2030 targets and to provide the City with substantial progress toward meeting the 2045 goal of carbon neutrality. The City's CAP proposed a GHG reduction target of 2.72 MT CO_2e per capita per year by 2030, which was determined using a linear trajectory in emissions reduction between 2030 and 2045. Build out of the proposed Project improvements are anticipated to be operational in the year 2034, which is post-2030. Therefore, the 2030 per capita target would not be applicable to the proposed Project. The City's CAP has also established a zero per capita emission threshold by 2045, consistent with the goal of carbon neutral emissions codified in AB 1279. As described in the Operational Emissions section under checklist question a), above, the proposed Project would not result in a significant increase in the generation of vehicle trips or VMT that would increase GHG emissions. The Project would also not be a substantial source of energy-, area-, waste-, or water-source emissions. Therefore, the proposed Project improvements would be aligned with meeting the zero per capita emission threshold established by the City's CAP. Therefore, the proposed Project would be consistent with applicable plans and programs designed to reduce GHG emissions. Therefore, the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. This impact would be **less than significant.**

4.10 HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

4.10.1 Baseline Conditions

A hazardous material is defined by 22 California Code of Regulations (CCR) § 66261.10 as a substance or combination of substances that may cause or significantly contribute to an increase in serious, irreversible, or incapacitating illness or may pose a substantial presence or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. Known hazardous materials in the City include asbestos-containing materials, lead, polychlorinated biphenyls (PCBs), and residual agricultural chemicals.

The State of California Hazardous Waste and Substances Site List (also known as the Cortese list) is a planning document used by State and local agencies and by private developers to comply with CEQA requirements in providing information about the location of hazardous materials sites. California Government Code Section 65962.5 requires the California Environmental Protection Agency to update the Cortese list annually. The Department of Toxic Substances Control (DTSC) EnviroStor database provides DTSC's component of Cortese list data by identifying sites that have known contamination or sites for which further investigation is warranted.

The Envirostor database identified 28 hazardous material sites in the Project area that are associated with hazardous material-related release or occurrence. Nine of these sites are considered active cleanup sites; two require further investigation; two are certified to treat, store, dispose or transfer hazardous materials; two require no further action; three are on backlog; and the remaining nine are addressed by the SWRCB. In addition, eight open leaking underground storage tanks were identified in the Project area that could cause significant groundwater impacts, contamination of drinking water, and inhalation of vapors. Two of these sites are open for site assessment, four are open for remediation, and two are open for verification monitoring.

Two hazardous waste land disposal program sites are in the Project area: the Humboldt Road Burn Dump Operational Unit and the Humboldt Road Private properties Operational Unit. Both are open but inactive. In addition, two certified hazardous waste storage facilities are within the Project area: Asbury Environmental Services and Chico Drain Oil Service. In the Project area, hazardous materials are regularly transported via Union Pacific Railroad, which runs west of downtown Chico along the western boundary of CSUC paralleling SR 32 and Midway to the north and south, respectively.

The City owns and operates one general aviation airport, Chico Regional Airport (CRA). CRA is a modern integrated air facility that accommodates air carriers and commercial and general aviation planes, and provides services including refueling, plane servicing, and flight training. CRA serves the Chico and northern Sacramento areas, located on the northwestern boundary of the City. The Butte County Airport Land Use Commission (ALUC) adopted an Airport Land Use Compatibility Plan (ALUCP) pertaining to the CRA, which establishes policies and guidelines by which the ALUC may assess the compatibility of development projects with the airport. In addition, one privately owned airport, Ranchaero Airport, is located just west of Chico, with a runway approximately 0.2 mile outside the City's SOI. This airport spans 23.5 acres and serves a combination of recreational, flight training, agricultural, and limited business functions.

Wildland Fire Hazards exist over approximately 70 percent of Butte County. The Project area has experienced several fires in recent years, including the Humboldt Fire in 2008, which burned 23,344 acres east of Chico. In the past 55 years, seven wildfires larger than 30 acres have been reported in Bidwell Park, burning through oak woodlands and chaparral along the north canyon face above Big Chico Creek in the Middle and Upper Park areas. The Project area contains significant areas of foothills that are subject to wildland fires. Bidwell Park and the surrounding land and the eastern foothills are most prone to wildfires and classified as Very High Fire Hazard Severity Zones. As a tool, fires to the east of Bruce Road receive substantial first alarm augmentation due to their wildland fire risk.

Sensitive receptors are groups that would be more affected by air, noise, light pollution, pesticides, and other toxic chemicals than other groups. They include infants, children under 16, elderly over 65, athletes, and people with cardiovascular and respiratory diseases. High concentrations of these groups would include, daycares, residential areas, elder-care facilities, schools, and parks.

4.10.2 Thresholds

4.10.2.1 City of Chico Municipal Code

Chapter 16.42, Fire Regulations, of the CMC contains fire regulations adopted to safeguard life and property from the hazards of fire and explosion arising from the storage, handling, and use of hazardous substances, materials, and devices, as well as from conditions hazardous to life or property in the use or occupancy of buildings or structures. The CMC requires permits for certain hazardous activities and operations and inspections to determine whether such activities or operations can be conducted in a manner that complies with the fire regulation standards and in a manner that will not cause a fire or contribute to its spread.

4.10.2.2 City of Chico Emergency Response/Evacuation Plan

The City is responsible for emergency operations within City boundaries. The City's Emergency Management Plan specifies actions for the coordination of operations, management, and resources during emergencies; governmental responsibilities during emergency events; and a plan for the organization of nongovernmental agencies providing support assistance.

4.10.2.3 City of Chico General Plan 2030

Safety Element.

- Goal S-8: Reduce the potential for public exposure to hazardous materials or the accidental releases of toxic or hazardous substances.
    - Policy S-8.1 (Hazardous Materials Safety Coordination): Support efforts to reduce the potential for accidental releases of toxic and hazardous substances
    - Policy S-8.2 (reduce Toxic Materials Use): Reduce the use of hazardous and toxic materials in City operations.

4.10.3 Impact Analysis

a. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? ***(Less Than Significant Impact)***

Sanitary sewer systems have the potential to contain several types of hazardous materials, including grease, biohazard waste, chemical waste, hydrogen sulfide, carcinogenic, teratogenic, or mutagenic organic compounds, pesticides, nitrogen, and phosphorus. In addition, materials utilized in operation or construction of existing or proposed sewer facilities such as piping, casing, and pumps may contain trace amounts of PCBs, flame retardants, heavy metals, asbestos, and lead. Operation of the Project involves routine transport, use, and/or disposal of hazardous materials. Hazardous materials (e.g., oil, grease, fuels, and paint) would be transported and used on site during construction activities. The routine transport, use, or disposal of these hazardous materials could pose a potential hazard to construction workers and future employees working at the Project site as they would be handling the hazardous materials and could therefore be exposed through inhalation of vapors, direct contact with skin, or accidental ingestion. The routine transport, use, or disposal of

these hazardous materials would not pose a significant hazard to the public or environment unless the hazardous materials were accidentally spilled or released into the environment.

The Project would be required to comply with the standards set forth in and by the Resource Conservation and Recovery Act, the Occupational Safety and Health Administration (OSHA), DTSC, California Occupational Safety and Health Administration (Cal/OSHA) regulations, and City of Chico General Plan policies. Therefore, impacts related to routine transport, use, or disposal of hazardous materials would be considered **less than significant**.

b. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? ***(Less Than Significant Impact)***

Although hazardous materials may be expected during Project construction and maintenance, the Project would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Therefore, any impact related to hazards to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would be considered **less than significant**.

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? ***(Less Than Significant Impact)***

The Project area contains 23 different schools and two major universities. **Figure 4.10-1, Schools in Project Area,** illustrates the location of these schools. The Project proposes improvements to the existing sanitary sewer system on parcels where schools are located, and hazardous materials may be present in existing and proposed conditions of construction and maintenance of the sewer system. Therefore, the implementation of proposed improvements may emit hazardous materials or handle hazardous materials within 0.25 mile of an existing or proposed school. Any proposed improvements would be required to comply with the standards set forth in and by the City of General Plan policies. Therefore, impacts related to routine transport, use, or disposal of hazardous materials would be considered **less than significant**.

d. Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? ***(Less Than Significant Impact)***

According to the DTSC EnviroStor mapper, approximately 28 hazardous cleanup sites are located within the Project area.[29] **Figure 4.10-2, Hazardous Material Sites in Project Area,** depicts the location of designated sites. The Project proposes improvements to the existing Sanitary Sewer System on parcels where hazardous material sites are located, and hazardous materials may be present in existing and proposed conditions of construction and maintenance of the sewer system.

[29] Department of Toxic Substances Control. n.d. EnviroStor Mapper. https://www.envirostor.dtsc.ca.gov/public/map/ (accessed October 2024).

Therefore, implementation of the Project in proximity to existing hazardous materials sites may create a significant hazard to the public or the environment. The Project would be required to comply with the standards set forth in and by the General Plan policies, as well as the Comprehensive Environmental Response, Conservation, and Liability Act (CERCLA). Therefore, impacts related to routine transport, use, or disposal of hazardous materials would be considered **less than significant**.

e. Would the project be located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? ***(No Impact)***

The Project proposes improvements to the existing sanitary sewer system on parcels within the CRA footprint. Therefore, the Project would be located within an airport land use plan and within 2 miles of a public airport, which could potentially result in a safety hazard or excessive noise for people residing or working in the Project area. However, the Project's components would not create a safety hazard for aircraft landings and takeoffs, and any excessive construction noise due to proposed improvements would be temporary in nature. The Project would not alter air traffic patterns or encourage future projects that could conflict with established Federal Aviation Administration (FAA) flight protection zones. Additionally, the Project was developed in accordance with City of Chico General Plan policies, and any proposed improvement project would be subject to individual analyses of potential airport conflicts. **Figure 4.10-3, Butte County Airport Land Use Compatibility Policy Map,** illustrates compatibility zones in the Project area**.** There would be **no impact** as a result of Project implementation as it relates to an airport plan or proximity to an airport or excessive operational noise.

f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? ***(Less Than Significant Impact)***

The Project would not impair or physically interfere with an adopted emergency plan or emergency evacuation plan. During implementation of the Project, work trucks would use existing roads and provide appropriate staging areas for materials and equipment. The Project would not physically interfere with existing traffic, and any direct activities within roadways would be approved through the City's Public Works Department for the implementation of traffic detours, lane closures, and other necessary street modifications to minimize disruptions to the public and ensure safe traffic flow during construction activities. Therefore, impacts related to an emergency response plan would be **less than significant**.

g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? ***(Less Than Significant)***

The Project area is designated as high and very high fire hazard severity zones by the California Department of Forestry and Fire Protection (CAL FIRE), fire hazard severity maps.[30]. In particular,

[30] California Department of Forestry and Fire Protection (CAL FIRE). Fire Hazard Severity Zones in State Responsibility Area. Website: https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008 (accessed November 2024).

lands in and surrounding Bidwell Park are in a Very High Fire Hazard Severity Zone and have a history of wildland fires. Implementation of Project components or introduction of an ignition source associated with the mechanical equipment may inadvertently start a localized fire. The Project would provide protective space around the infrastructure and keep clear overgrown vegetation, which would reduce the risk of wildland fire. Any future projects would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines.* In addition, individual projects contemplated under the 2025 SSMP would be evaluated for site-specific impacts to paleontological resources and would include appropriate mitigation as necessary to address impacts related to paleontological resources. Therefore, adoption of the 2025 SSMP would result in a **less than significant impact** related to unique paleontological resources or sites or unique geologic features, and no mitigation is required.

4.11 HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	☐	☐	☒	☐
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv. Impede or redirect flood flows?	☐	☐	☒	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

4.11.1 Baseline Conditions

The City is located in the northern Sacramento Valley, with the Sacramento River forming a major hydrological feature west of the City. Annual precipitation in the Sacramento River Hydrologic Region generally increases as one moves from south to north and west to east, with heavy snow and rainfall contributing to overall water supply for the entire State. The Project area has a Mediterranean climate, characterized by hot, dry summers and cool, wet winters. Winters are mild and most rainfall comes in January. Rainfall averages approximately 26 inches annually.

The existing surface water system is dominated by the Sacramento River watershed and several smaller tributaries in Chico, such as Big Chico Creek and Little Chico Creek, which flow through the City. These water bodies, as well as stormwater runoff, contribute to the City's overall hydrology. Additional streams include Dead Horse Slough, Sycamore Creek, Comanche Creek, and Lindo Channel, which provide additional drainage throughout the Project area.

The City is also part of the Chico Urban Area Drainage Master Plan, which outlines the local stormwater infrastructure and addresses drainage issues such as localized flooding in certain low-lying areas. Stormwater runoff in the urbanized areas of the City is typically channeled through a

network of storm drains, culverts, and channels, with some of this runoff ultimately entering natural water bodies. The drainage system is designed to convey stormwater to the Sacramento River or other nearby water bodies, with stormwater retention basins used to manage peak flows during significant rainfall events. Areas with less developed land, particularly to the east and north of the City, typically have less artificial stormwater infrastructure, and natural runoff is directed to local creeks and streams. **Figure 4.11-1, Hydrologic Features,** depicts creeks and other water resources in the Project area.

The City lies within the Sacramento Valley groundwater basin and the Vina subbasin. The aquifer system underlying the City supplies the municipal and agricultural water demands. Groundwater is accessed through wells, and the water quality is generally good, with typical levels of minerals such as calcium, magnesium, and sodium. Local groundwater levels have been stable historically, although there have been periodic concerns about overdraft in the surrounding region due to agricultural and urban demands.

The capacities of the channels in the western portion of the Project area are limited, and potential flows may be higher than historical occurrences. Floodwater could flow out of the Big Chico Creek Channel, and flooding potential is exacerbated near the Sacramento River flood control projects on Little Chico Creek, Big Chico Creek, and Lindo Channel. Currently, these flood control projects help to reduce runoff and therefore potential flooding problems. Storm drainage systems are designed to handle storm runoff for events smaller than a 100-year flood event but can become inadequate as runoff increases as a watershed develops. The City's floodplain management activities are governed by the Federal Emergency Management Agency (FEMA). The City is also a participant in the National Flood Insurance Program (NFIP), which helps manage flood risk and improve community resilience.

Water quality for all surface and ground waters in the Sacramento Valley is regulated under the Central Valley RWQCB and discussed in the region's Basin Plan. Water in the City is treated to meet all federal and State drinking water regulations, but can be impacted by plumes of contaminated groundwater, nitrate concentration, and arsenic. Eight areas of contaminated groundwater plumes have been identified within Chico, six of which are contaminated with VOCs, including perchloroethylene and trichloroethylene. All plume areas identified have either been taken out of service or had treatment facilities installed. Recent assessments indicate that these water bodies have experienced periods of water quality degradation, primarily due to urban runoff, agricultural discharges, and development-related activities. Stormwater runoff in the city can carry pollutants such as sediment, nutrients (nitrogen and phosphorus), pesticides, and oil and grease, which can impact local water quality during rainfall events. As part of the City's Stormwater Management Plan,[31] the City has implemented various BMPs to reduce these impacts, such as vegetated swales, infiltration basins, and retention ponds designed to treat runoff before it enters nearby streams or rivers.

[31] City of Chico. n.d. Storm Water Management Plan. Website: https://chico.ca.us/Departments/Public-Works/SewerStorm-Drain-Engineering/Storm-Water-Management/ (accessed November 2024).

4.11.2 Thresholds

4.11.2.1 Regional Water Quality Control Board Central Valley Region Basin Plan

All projects within the San Joaquin Valley are subject to the requirements of the Central Valley RWQCB Water Quality Control Plan (Basin Plan) prepared to help preserve and enhance water quality and to protect the beneficial uses of State waters. The Basin Plan designated beneficial uses for surface and ground waters, and it sets qualitative and quantitative objectives that must be attained or maintained to protect the designated beneficial uses and conform to the State's anti-degradation policy.

4.11.2.2 Limited Threat Discharge to Surface Waters General Permit

The Central Valley Regional Water Quality Control Board National Pollutant Discharge Elimination System (NPDES) CAG995002 Order R5-2022-0006-02 for Waste Discharge Requirements Limited Threat Discharges to Surface Water was recently adopted on December 14, 2023.[32] This General Permit addresses the potential limited threat wastewater, which includes construction dewatering discharges. In accordance with this permit, all dischargers must comply with all applicable provisions in the relevant Basin Plan, including any prohibitions and water quality objectives governing the discharge. In addition, the discharge of waste may not cause the spread of groundwater contamination.

4.11.2.3 NPDES MS4 Permit

The Municipal Storm Water Permitting Program regulates stormwater discharges from MS4s. The NPDES MS4 permits are issued in two phases by the SWRCB and RWQCBs. Phase I MS4 permits are issued to medium (serving between 100,000 and 250,000 people) and large (serving more than 250,000 people) municipalities. The Phase II MS4 Permits are issued to smaller municipalities (populations of less than 100,000 people), and nontraditional small MS4s (e.g., military bases, public campuses, and prison and hospital complexes). The Phase II Small MS4 Permit for the City is currently being updated and has not been finalized by the SWRCB. The existing general permit is Order No. 2013-0001-DWQ, General Permit No. CAS000004)[33]. The Phase I and Phase II MS4 permits require the permittees to develop a stormwater management program and individual dischargers to develop and implement a Storm Water Management Plan. The City is a permittee on and subject to the requirements of the Statewide Phase II MS4 permit.

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32 California Regional Water Quality Control Board (RWQCB) Central Valley Region. 2023. National Pollutant Discharge Elimination System (NPDES) CAG995002 Order R5-2022-0006-02 for Waste Discharge Requirements Limited Threat Discharges to Surface Water. Adopted December 14, 2023. Website: https://www.water boards.ca.gov/centralvalley/board_decisions/ adopted_orders/general_orders/ (accessed February 8, 2024).

33 State Water Resources Control Board. *Storm Water Discharges From Small Municipal Separate Storm Sewer Systems (MS4s).* February, 2013. Website: https://chico.ca.us/documents/Departments/Public-Works/SewerStorm-Drain-Engineering/Storm-Water-Documents/2013_ms4_permit.pdf (accessed January 2025).

4.11.2.4 Chico Stormwater Management Program (2004)

The Chico Stormwater Management Program is a comprehensive program developed and administered by the Engineering Division as a requirement of Phase II of the National Pollutant Discharge Elimination System (NPDES) Program. The program comprises various elements and activities designed to reduce stormwater pollution to the maximum extent practicable (MEP) and eliminate prohibited non-stormwater discharges in accordance with federal and State laws and regulations.

4.11.2.5 Chico Storm Drainage Master Plan (2001)

The Chico Storm Drainage Master Plan provides a conceptual blueprint for development of the City's storm runoff management infrastructure as Chico grows and expands and areas within the SOI become more urbanized. The document includes storm drain facility design standards and descriptions of mitigation measures to convey runoff, attenuate peak flows, and stabilize stream channels, as well as BMPs for water quality enhancement at construction sites and new developments. The Storm Drainage Master Plan is in process of being updated and is proposed to go to City Council on January 28, 2025. Therefore, all future project reviews would utilize the most current and approved plan.

4.11.2.6 Chico Municipal Code

The CMC prohibits discharges of storm runoff to sanitary sewers (Title 15: Water and Sewers), regulates development in floodplains and alteration of watercourses (Title 16: Buildings and Construction), provides for preservation and enhancement of riparian habitat (Title 18: Subdivisions), and establishes design criteria and improvement standards for storm drain management and facilities (Title 18R: Design Criteria and Improvements Standards), development standards in floodplains (Title 16R.37: Floodplain Standards), and development and use standards for creekside areas (Title 19: Land Use and Development).

It should also be noted that there are approved development projects in the City that have adopted mitigation measures that provide mitigation for soil erosion, flooding, and water quality impacts (preparation of a SWPPP and provision of erosion control features). These projects include large-scale developments in the City such as the Meriam Park Project and the Northwest Chico Specific Plan.

4.11.2.7 City of Chico General Plan 2030

Parks, Public Facilities, and Services Element.

- Goal PPFS-4: Maintain a sanitary sewer system that meets the City's existing and future needs, complies with all applicable regulations, and protects the underlying aquifer.
    - Policy PPFS-4.1 (Sanitary Sewer System): Improve and expand the sanitary sewer system as necessary to accommodate the needs of existing and future development.
    - Policy PPFS-4.2 (Protection of Groundwater Resources): Protect the quality and quantity of groundwater resources, including those that serve existing private wells, from contamination by septic systems.

- Policy PPFS-4.3 (Capacity of Water Pollution Control Plant): Increase system capacity by reducing wet weather infiltration into the sanitary sewer system.
- Policy PPFS-4.4 (Wastewater Flows): Ensure that total flows are effectively managed within the overall capacity of the Water Pollution Control Plant.
- Policy PPFS-5.3 (Water Conservation): Work with Cal Water to implement water conservation management practices.
- Policy PPFS-6.4 (Water Runoff): Protect the quality and quantity of water runoff that enters surface waters and recharges the aquifer.
- Policy PPFS-6.5 (Flood Control): Manage the operation of the City's flood control and storm drainage facilities and consult with local and State agencies that have facilities providing flood protection for the City.

Open Space and Environment Element.

- Goal OS-3: Conserve water resources and improve water quality.
  - Policy OS-3.1 (Surface Water Resources): Protect and improve the quality of surface water.
  - Policy OS-3.2 (Protect Groundwater): Protect groundwater and aquifer recharge areas to maintain groundwater supply and quality.
  - Policy OS-3.3 (Water Conservation and Reclamation): Encourage water conservation and the reuse of water.

Safety Element.

- Goal S-2: Minimize the threat to life and property from flooding and inundation.
  - Policy S-2.1 (Potential Flood Hazards): When considering areas for development, analyze and consider potential impacts of flooding.

4.11.3 Impact Analysis

a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality? ***(Less Than Significant)***

The Project intends to increase capacity deficiencies in the existing sewer system through expansion and improvements to outdated sewer infrastructure, thereby improving efficiency and cleanliness of the City's water resources. Construction activities could temporarily degrade water quality to a local stream or storm drain system as a result of erosion caused by earth moving activities or the accidental release of hazardous construction chemicals. Excavation and other construction activities associated with the Project could lead to increased erosion and sedimentation resulting from exposed soils and the generation of water pollutants, including trash, construction materials, and

equipment fluids. Additionally, spills, leakage, or improper handling and storage of substances such as oils, fuels, chemicals, metals, and other substances from vehicles, equipment, and materials used during project construction could contribute to stormwater pollutants or leach to underlying groundwater.

The proposed sewer infrastructure improvements are not expected to significantly impact water quality in Big Chico Creek or other nearby water bodies. Furthermore, since the sanitary sewer system is separated from stormwater infrastructure, the Project would not introduce additional pollutants into surface waters from wastewater effluent, which is treated prior to discharge. As the system is expanded, the Project would also help prevent illicit discharges from failing septic systems, improving overall water quality in the region.

Typically, construction-related stormwater pollutant discharges are regulated pursuant to the NPDES Construction General Permit, which requires visual monitoring of stormwater and non-stormwater discharges; sampling, analysis, and monitoring of non-visible pollutants; and compliance with all applicable water quality standards established for receiving waters potentially affected by construction discharges. Furthermore, the Construction General Permit requires implementation of a Stormwater Pollution Prevention Plan (SWPPP) that outlines project-specific BMPs to control erosion. Such BMPs include the use of temporary de-silting basins, construction vehicle maintenance in staging areas to avoid leaks, and installation of silt fences and erosion control blankets. Coverage under the Construction General Permit is required for projects resulting in greater than 1 acre of disturbance area. If the project site is less than 1-acre, the Project is not subject to the Construction General Permit requirements. As such, if not properly managed, construction activities could result in erosion and sedimentation, as well the discharge of chemicals and materials. In such an instance, applicable water quality standards and waste discharge requirements could be violated, and polluted runoff could substantially degrade water quality in the local storm drain system, resulting in a potentially significant construction-related impact on water quality.

Project operations would not involve ground disturbance or result in an increase in impervious surface area, which would limit the potential for off-site migration of sediment and pollutants in runoff. Routine use and storage of hazardous materials on the site would be managed in accordance with applicable federal, state, and local laws and regulations, which would limit the potential for water quality impacts associated with leaching or runoff of chemicals. The 2025 SSMP is a programmatic document intended to guide development of future projects within the City and does not directly authorize any physical ground disturbance. Any future physical activities would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines.* In addition, individual projects contemplated under the 2025 SSMP would be evaluated for site-specific impacts to hydrology and water quality and would include appropriate mitigation as necessary to address impacts related to violation of water quality standards or waste discharge requirements, degradation of water quality, or alteration of drainage patterns. Therefore, adoption of the 2025 SSMP would result in a less than significant impact related to the violation of water quality standards or waste discharge requirements, degradation of water quality, or alteration of drainage patterns, and no mitigation is required.

As discussed previously, quality for all surface and ground waters in the Sacramento Valley are regulated under Central Valley RWQCB and the CWA and discussed in the region's Basin Plan. CWA Section 303(d) requires states to identify and prepare a list of water bodies that do not meet water quality objectives, and to establish Total Maximum Daily Loads (TMDLs) for each water body to ensure attainment of water quality objectives. Big Chico Creek is 303(d) listed for mercury.[34] The activities associated with sanitary sewer repairs would not add to mercury exceedances in Big Chico Creek. The primary sources of mercury in the creek are more linked to atmospheric deposition, past mining activities, or urban runoff, not sewer infrastructure.

While the Project recommends individual improvement projects that may impact surface or groundwater quality during construction, the overall Project would help to mitigate water quality concerns in the Project area. The Project would be required to comply with the standards set forth in and by the CWA, the MS4 General Permit, Sustainable Groundwater Management Act, Central Valley RWQCB Basin Plan, the City and County General Plans, and the City's Stormwater Master Plan.

Drinking water in Chico is treated to meet all federal and State drinking water regulations. Additionally, the Project would include development of a SWPPP for construction activities 1 acre or greater in scope. Under existing City programs, BMPs are implemented as a standard practice to reduce erosion on and off sites within Chico. Therefore, impacts related to the violation of any water quality or waste discharge requirements would be considered **less than significant**.

b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? ***(Less Than Significant Impact)***

Chico lies within the Sacramento Valley Groundwater Basin and the Vina subbasin. **Figure 4.11-2, Groundwater Bearing Zones,** illustrates groundwater basins in the Sacramento Valley region. Groundwater can infiltrate the sewer system when the water table rises above the depth of the pipeline, particularly if the sanitary sewer pipes are susceptible to infiltration through defects like cracks, misaligned joints, or broken sections. Older pipelines are especially vulnerable to such infiltration. To address this, the Project aims to identify and address deficiencies in the existing sewer system, replacing outdated infrastructure with upgrades designed to reduce groundwater interference.

The Project does not include construction of residential, commercial, industrial, or other development that would generate new water demand requiring increased groundwater extraction. Construction activities associated with the Project would not require dewatering or use well or groundwater sources and, therefore, are not expected to affect groundwater supplies. Additionally, the Project is not expected to encounter groundwater during trenching activities and would not involve permanent pumping of groundwater sources. The Project would not substantially deplete

[34] State Water Resources Control Board. 2018 303(d) List of Impaired Waters. Website: https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.waterboards.ca.gov%2Fwater_issues%2Fprograms%2Ftmdl%2F2018state_ir_reports_final%2Fapp_a_2018303d.xlsx&wdOrigin=BROWSELINK (accessed January 2025).

groundwater supplies or directly result in a net deficit of local aquifer levels. Therefore, impacts related to groundwater would be considered **less than significant**.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: ***(Less Than Significant Impact)***

i. Result in substantial erosion or siltation on- or off-site;

In the Project area, distinct hydrologic features include Big Chico Creek, Mud Creek, and Butte Creek. Significant streams include Little Chico Creek, Dead Horse Slough, Sycamore Creek, Comanche Creek, and Lindo Channel, providing drainage to the Project area. The drainage basin includes streams and rivers that convey water as well as the land surfaces from which water drains into those channels. In addition to those noted above, several ephemeral streams exist within the City during the rainy season. Construction associated with the Project may require minimal grading and vegetation removal activities that could increase soil erosion rates in the areas proposed for improvement. Construction activities could result in the exposure of raw soil materials to the natural elements (wind, rain, etc.). Areas with uncontrolled concentrated flows would experience loss of material within the graded areas and could potentially impact downstream water quality.

Dischargers whose projects disturb 1 or more acres of soils, or whose projects disturb less than 1 acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the General Permit Order 2022-0057-DWQ (NPDES No. CAS000002) effective on September 1, 2023. This permit also requires the preparation and implementation of a SWPPP that identifies BMPs to minimize pollutants from discharging from construction sites to the MEP. Therefore, impacts related to groundwater would be considered **less than significant**.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; ***(Less Than Significant Impact)***

The CMC prohibits the discharge of storm runoff into sanitary sewers and sets design criteria, improvement standards, and development regulations for storm drain management and creekside areas that are most prone to significant runoff during storms. To prevent watercourse pollution from nutrients, sediments, or other materials caused by surface runoff, the City has enacted grading regulations and general provisions for the Project area. The majority of the Project improvements would be installed underground, and post-construction stabilization measures would restore drainage areas and stabilize the site. The Project would comply with all relevant federal, State, regional, and local policies, ensuring no increase in the rate or volume of surface runoff. Therefore, impacts related to groundwater would be considered **less than significant**.

*iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or**(Less Than Significant Impact)***

The Project and its proposed improvements would increase capacity and efficiency of the existing sanitary sewer system, which does not include the collection of discharge or runoff water. The Project would not result in an increased rate or amount of surface runoff. Therefore, any impacts related to runoff would be considered **less than significant**.

*iv. Impede or redirect flood flows? **(Less Than Significant Impact)***

The Project improvements would be installed mostly underground and would upgrade some of the existing sanitary sewer system. Implementation of the Project would not impede or redirect flood flows. Therefore, impacts would be considered **less than significant**.

*d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation? **(Less Than Significant Impact)***

A seiche zone refers to an area where seiches, or standing waves, can occur. Seiches can occur in lakes, rivers, canals, bays, and harbors. While the Project area contains several creeks, there are no large bodies of water in proximity to the Project area. In addition, the Project area is approximately 104 miles from the coast. Therefore, the Project would not be impacted by tsunamis.

The capacities of the channels in the western portion of the Project are limited, and potential flows may be higher than historical occurrences. Floodwater could flow out of the Big Chico Creek Channel, and flooding potential is exacerbated near the Sacramento River flood control projects on Little Chico Creek, Big Chico Creek, and Lindo Channel. Storm drainage systems are designed to handle 100-year events. Storm sewers, ditches, and other waterways can be blocked by debris, which can cause damage to roadways. **Figure 4.11-3, FEMA Flood Zones,** depicts flood zones within the Project area.

The Project site is not within a mapped dam failure inundation area.[35] Therefore, the Project site is not at risk of inundation due to dam failure. The Project would comply with the standards set forth in and by the Flood Control Act, the Flood Disaster Protection Act and the City's General Plan. The Project includes improvements to the City's sanitary sewer infrastructure and would not release pollutants as a result of inundation from flood, tsunami, or seiche events. Therefore, impacts related to flooding would be considered **less than significant**.

[35] California Department of Water Resources (DWR). 2015. Division of Safety of Dams. Dam Breach Inundation Map Web Publisher. Website: https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2 (accessed October 2024).

e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? ***(Less Than Significant Impact)***

The 2025 SSMP aims to improve the infrastructure for wastewater conveyance and treatment, with a focus on maintaining compliance with local and state regulations regarding stormwater management and water quality. The project involves sewer system repairs and expansions, which could potentially impact stormwater runoff, especially during construction. The City of Chico is subject to the requirements of the NPDES general permits, and the 2025 SSMP will incorporate BMPs to control construction-related runoff, including erosion and sedimentation controls. These measures would ensure compliance with the City's Stormwater Management Plan and reduce the risk of pollutants such as sediment, debris, or oils being discharged into nearby water bodies, including Big Chico Creek. In addition, LID strategies, such as green infrastructure and permeable surfaces, will be evaluated and implemented where feasible to minimize post-construction runoff and maintain water quality standards. The Project has been developed in compliance with existing water quality control plans and sustainable groundwater management plans. The Project improvements would contribute to the efficiency of water quality within the Project area. Therefore, the Project would not conflict or obstruct implementation of water quality control plans or sustainable groundwater management plans, and impacts would be **less than significant**.

4.12 LAND USE AND PLANNING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	☐	☐	☐	☒
b. 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?	☐	☐	☐	☒

4.12.1 Baseline Conditions

The City's General Plan Land Use Map illustrates the various land uses in Chico, such as residential, commercial, office and industrial, public and open space, and special area land uses as illustrated on **Figure 4.12-1, General Plan Land Use Map.** The City is organized into various land use designations that guide development, such as residential, commercial, industrial, and open space. The General Plan also includes policies aimed at preserving the character of Chico, managing growth in a sustainable manner, and addressing environmental and community needs.

4.12.2 Thresholds

4.12.2.1 City of Chico General Plan 2030

Land Use Element.

- Goal LU-1: Reinforce the City's compact urban form, establish urban growth limits, and manage where and how growth and conservation will occur.
- Goal LU-2: Maintain a land use plan that provides a mix and distribution of uses that meet the identified needs of the community.
    - Policy LU-2.7 (General Plan Consistency Requirement): Ensure consistency between the General Plan and implementing plans, ordinances, and regulations
- Goal LU-3: Enhance existing neighborhoods and create new neighborhoods with walkable access to recreation, places to gather, jobs, daily shopping needs, and other community services.
    - Policy LU-3.4 (Neighborhood Enhancement): Strengthen the character of existing residential neighborhoods and districts.

Neighborhood Plans. The City is involved in planning efforts with neighborhood associations and community members. The following Neighborhood Plans have been adopted to provide specific planning guidance to neighborhoods in Chico:

- The Avenues Neighborhood Improvement Plan
- Southwest Chico Neighborhood Improvement Plan
- Chapman/Mulberry Neighborhood Plan

Special Planning Areas and Master Plan Areas. The City has identified four special planning areas within Chico or its surrounding area as areas with potential for growth and development. Specific Plans have been adopted for the special planning areas to implement the goals and policies of the General Plan and include measures for future projects within its specific geographic area to adhere to. In addition, the City identified the Stonegate Master Plan. The identified Special Planning Areas and Master Plan area include:

- North Chico
- Barber Yard
- South Entler
- Bell Muir[36]
- Honey Run/Doe Mill
- Stonegate

4.12.3 Impact Analysis

a. Would the project physically divide an established community? ***(No Impact)***

The Project would result in sewer infrastructure improvements to the City's existing sewer system. The Project would address sewer system capacity deficiencies and update infrastructure to maintain reliability and a clean, safe community in Chico.

Figure 4.12.1, General Plan Land Use Map, and **Figure 4.12-2, Zoning Map,** illustrate the Land Use and Zoning designations within Chico. The Project has proposed improvements across multiple land use and zoning regulations. **Figure 3-5, Identified Build-Out Projects,** illustrates identified build-out projects throughout the City SOI and outside the SOI in designated SPAs. Build-out projects are proposed in or adjacent to SPAs such as North Chico, Barber Yard, and Honey Run/Doe Mill. Identified build-out projects align with the City's General Plan and were selected based on review of existing and proposed SPAs and Master Plan Areas. In early 2024, the Chico City Council approved the dissolution of the Bell Muir SPA. Identified build-out projects in the region of the dissolved Bell Muir SPA may resume with no impact to land use and zoning regulations by adhering to the City's regulations. Other build-out projects in the North Chico SPA, Barber Yard SPA, Honey Run/Doe Mill SPA, and Stonegate Master Plan area would occur with adherence to Specific Plan and Master Plan policies. Project components would not affect land use and zoning regulations because the Project was developed with guided review of the 2030 General Plan Land Use Element. In addition, construction of proposed trunk sewers and lift stations is small in scale or consists of underground installation and would not cause substantial changes to an established community. Proposed sewer infrastructure is intended to support the City and would not substantially affect Chico's community or circulation network. The Project would not result in construction that would divide a community

[36] The Chico City Council dissolved the Bell Muir SPA on October 2, 2024.

or remove a means of access in Chico. Therefore, the Project would have **no impact** related to physically dividing an established community.

*b. Would the project 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? **(No Impact)***

Proposed improvements are expected to occur across multiple land use designations and in accordance with the designations set forth in the Chico 2030 General Plan. No changes to land use policies or regulations are expected to occur as a result of the Project. Therefore, the Project 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, and there would be **no impact.**

4.13 MINERAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

4.13.1 Baseline Conditions

There are no active mines and no known areas with mineral resource deposits within the City limits or the City's SOI. No mineral resource zones have been designated in Chico. The closest mining operations are located to the southeast outside of the City. There are existing mining activities in the county that focus on sand, gravel, and gold. The nearest existing mining operation is Little Chico Creek Mine (State ID No. 91-04-0030), located along the eastern boundary of the City limits and SOI and operated by Franklin Construction Company Inc. The primary commodities mined at Little Chico Creek Mine are rock and crushed rock.

4.13.2 Thresholds

4.13.2.1 Surface Mining and Reclamation Act

The California Surface Mining and Reclamation Act of 1975 (SMARA) was enacted in response to land use conflicts between urban growth and essential mineral production. SMARA requires the State Geologist to classify land according to the presence or absence of significant mineral deposits.

Local governments must consider this information before land with important mineral deposits is committed to land uses incompatible with mining.

SMARA provides for the evaluation of an area's mineral resources using a system of Mineral Resource Zone (MRZ) classifications that reflect the known or inferred presence and significance of a given mineral resource.

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

4.13.3 Impact Analysis

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state? ***(No Impact)***

The CDOC Division of Mine Reclamation[37] and the CGS[38] do not identify the any active mines and no known areas with mineral resource deposits within the Project area. In addition, there are no MRZ designations within the Project area. Therefore, the Project 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, and the Project would have **no impact**.

b. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? ***(No Impact)***

As described above, no active mines or known areas with mineral resource deposits exist within the Project area. Additionally, the City's Zoning Map and 2030 General Plan Land Use Element do not designate any areas within the Project area as mineral resource recovery sites. Therefore, the Project 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. The Project would not result in the loss of locally important mineral resources, and **no impacts** would occur.

37 California Department of Conservation (DOC), Division of Mine Reclamation. 2024. Website: https://www.conservation.ca.gov/dmr (accessed November 15, 2024).

38 California Geologic Survey (CGS). n.d. Information Warehouse: Mineral Land Classification. Website: https://maps.conservation.ca.gov/cgs/informationwarehouse/mlc/ (accessed November 15, 2024).

4.14 NOISE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a. Generation of 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. Generation of 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 2 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?	☐	☐	☒	☐

4.14.1 Baseline Conditions

Noise-sensitive land uses are generally considered uses that would result in noise exposure that could cause health-related risks to individuals. Places where quiet is essential are also considered noise-sensitive uses. Residences, hospitals or healthcare facilities, parks and wildlife areas, places of worship, libraries, and schools are sensitive uses that are all found within the Project area.

The City is considered a metropolitan area with a population of 107,394 people.[39] There are approximately 92,362 housing units in Chico, with 66 percent of the housing units being single-family housing units. According to the City's Zoning Map, suburban residential zones, low-density residential zones, and medium-density residential zones are dispersed throughout the City. Residential uses would be considered sensitive noise receptors to any noise-generating activities.

Other sensitive noise receptors include hospitals and healthcare facilities. Enloe Medical Center is located at 1531 Esplanade in the central portion of the City. Enloe Medical Center also has a rooftop helipad primarily used for transporting patients.

Several sources of noise that could affect the local community were identified within the City. These sources include noise generated from stationary activities (e.g., commercial and industrial uses), aircraft operations, and traffic on major roadways and highways.

Stationary noise sources include industrial and commercial land uses. According to the City's Zoning Map, there are Manufacturing/Industrial Districts, Commercial/Office Districts, and Airport Districts, which may include noise-generating land uses. Common noise sources associated with commercial and industrial land uses include operation of power tools, materials handling equipment, and the loading and unloading of materials from delivery trucks. Industrial land uses are largely located

[39] United States Census Bureau. 2022. American Community Survey 1-Year Estimates. Retrieved from Census Reporter Profile page for the Chico, CA Metro Area. Website: http://censusreporter.org/profiles/31000US17020-chico-ca-metro-area/.

within the northern portion of the City, near CRA and along major roadway corridors. Additional manufacturing and industrial uses are in the southern portion of the City along with other noise-generating uses such as commercial uses and the Silver Dollar Fairground, which houses the Silver Dollar Speedway track.

CRA is the largest and busiest airport in Butte County and occupies 2.3 square miles on the northern edge of the City. The City owns and operates the airport, handling over 50,000 aircraft takeoffs and landings annually. CRA is primarily used for business and general aviation, including air cargo operations and maintenance. The northern portion of the City and the unincorporated areas surrounding the airport are within the Airport Influence Area (AIA).

4.14.2 Thresholds

4.14.2.1 City of Chico General Plan 2030

Noise Element.

- Goal N-1: To benefit public health, welfare and the local economy, protect noise sensitive uses from uses that generate significant amounts of noise.
- Goal N-2: Encourage noise attenuation methods that support the goals of the General Plan.
    - Policy N-2.2 (Partners in Noise Reduction): Consult with public and private organizations to encourage reduction of the noise levels of activities that impact large portions of the community.
- Goal N-3: Promote and enforce the City's noise standards.
    - Policy N-3.1 (City Noise Control Program): Maintain a noise enforcement program to identify and resolve problems concerning noise in the community.

4.14.2.2 City of Chico Municipal Code

The CMC (Chapter 9.38, Noise) regulates excessive, unnecessary, and unreasonable noise from various sources within the City. In accordance with the CMC, noise levels associated with residential land uses, measured at any point outside the property line, are limited to a maximum of 70 A-weighted decibels (dBA) between the hours of 7:00 a.m. and 9:00 p.m. and 60 dBA between the hours of 9:00 p.m. and 7:00 a.m. Interior noise levels of multifamily residential properties are limited to a maximum of 60 dBA at 3 feet from any wall, floor, or ceiling inside any dwelling unit, measured within adjacent dwelling units with windows and doors closed. Noise levels on commercial or industrial properties are limited to a maximum of 70 dBA, measured at any point outside the property line. Noise generated on public property is limited to a maximum of 60 dBA at 25 feet from the source. For construction-related activities that occur between the hours of 10:00 a.m. and 6:00 p.m. on Sundays and holidays, and 7:00 a.m. and 9:00 p.m. on weekdays, the following limitations shall apply:

A. No individual device or piece of equipment shall produce a noise level exceeding 83 dBA at a distance of 25 feet from the source. If the device or equipment is housed within a structure on

the property, the measurement shall be made outside the structure at a distance as close as possible to 25 feet from the equipment.

B. The noise level at any point outside of the property plane of the project shall not exceed 86 dBA.

4.14.3 Impact Analysis

a. Would the project result in generation of 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? ***(Less than Significant Impact)***

The Project is a planning-level document that proposes improvements to Chico's existing sanitary sewer system. Planned improvements in the project range from maintenance to construction of new facilities, including improved lift stations and new, extended, or expanded pipelines. Each proposed improvement recommended by the Project would be required to undergo individual project-level environmental review and analysis consistent with CEQA regulations and implement mitigation measures to reduce any significant environmental impacts.

The existing sewer system is connected to various land uses, including Agricultural, SFR, MFR, Commercial, Manufacturing/Warehousing, Mixed-Use, Parks and Open Space, Privately Owned Common Area, PQ, and Surface Water and Drainage uses, some of which may be sensitive receptors.

The Project is intended to identify and mitigate deficiencies within the City's wastewater collection system, proposing improvements for both existing and build-out scenarios. Proposed improvements under the Project would require construction that would span 10 years, from 2024 to 2034. Construction materials would be standard for wastewater and sewer projects, requiring trenchers, excavators, graders, and pavers. Implementation of proposed improvements under the 2025 SSMP would require further site-specific CEQA analysis to identify potential significant impacts that construction noise may have on ambient noise levels.

Noise levels for construction of proposed improvements under the Project would be in accordance with the CMC to regulate noise levels associated with residential land uses. There are many residential parcels connected to the sewer system, and improvements are proposed within residential land uses as well. Chapter 9.38 of the CMC states that:

> "For construction-related activities that occur between the hours of 10 a.m. and 6 p.m. on Sundays and holidays, and 7 a.m. and 9 p.m. on weekdays, the following limitations shall apply:
>
> A. No individual device or piece of equipment shall produce a noise level exceeding eighty-three (83) dBA at a distance of twenty-five (25) feet from the source. If the device or equipment is housed within a structure on the property, the measurement shall be made outside the structure at a distance as close as possible to twenty-five (25) feet from the equipment.

B. The noise level at any point outside of the property plane of the project shall not exceed eighty-six (86) dBA."[40]

In addition, the Chico General Plan 2030 Noise Element identifies action policies to enforce the City's Noise Ordinance by conducting on-site testing of noise sources (Policy N-3.1.1). These local policies would mitigate any excessive noise levels that construction noise may have on noise-sensitive land uses near proposed sewer system improvements. It is important to note that construction of sewer system improvements would be temporary. Site-specific noise analyses for proposed improvements would identify the existing noise environment and noise exposure from construction activities. However, any new construction would need to be consistent with the General Plan Noise Element. Overall, the Project would have a **less than significant impact** on temporary or permanent increases in ambient noise in excess of local standards.

b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels? ***(Less than Significant Impact)***

The Project is a planning-level document that proposes improvements to Chico's existing sanitary sewer system. Planned improvements in the project range from maintenance to construction of new facilities, including improved lift stations and new, extended, or expanded pipelines. Each proposed improvement recommended by the project would be required to undergo individual project-level environmental review and analysis consistent with CEQA regulations and to implement mitigation measures to reduce any significant environmental impacts. The SSMP would not generate vibration because the Project would not directly result in physical development, and through compliance with the City's and County's General Plans, noise impacts related to vibration or noise levels would be **less than significant**.

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 2 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? ***(Less than Significant Impact)***

As previously discussed, the CRA is located in the northern portion of the City. The unincorporated area north of the airport and southern portions of the City are within the AIA of CRA. The airport is connected to the sewer system and Cohasset Road Sewer is an identified build-out project near the airport. The build-out project is a proposed improvement under the SSMP, which may require construction in the future. As previously discussed above, the Project is a planning-level document that proposes improvements to Chico's existing sanitary sewer system. Planned improvements in the Project range from maintenance to construction of new facilities, including improved lift stations and new, extended, or expanded pipelines. Each proposed improvement recommended by the Project would be required to undergo individual project-level environmental review and analysis consistent with CEQA regulations and implement mitigation measures to reduce any significant environmental impacts. The Project would not directly expose people residing or working in the

[40] City of Chico Municipal Code. Chapter 9.38.

Project area to excessive noise levels due to the vicinity of a private airstrip or an airport land use plan. Therefore, impacts would be **less than significant.**

4.15 POPULATION AND HOUSING

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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)?	☐	☐	☐	☒
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.15.1 Baseline Conditions

In 2023, the population of Chico was estimated at 107,394. From 2020 to 2023, the population was estimated to have fallen by approximately 2 percent, from 103,277 to 101,301.[41] While there are several sources that identify population within the City limits, there is no official tracking of population for the area within the Chico SOI. In 2023, the City was estimated to have a total of 41,454 households, with an average of 2.39 persons per household. The rate of owner-occupied housing units from 2018 to 2023 was estimated at 44.1 percent, with a median home value of $427,600. According to the Bureau of Labor Statistics, approximately 86.8 percent of residents in Chico were employed in August 2024, with an unemployment rate of approximately 6.3 percent.

4.15.2 Impact Analysis

a. Would the project 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)? ***(No Impact)***

Consistent with the growth anticipated and analyzed by the 2030 General Plan and associated EIR, the Project is a planning-level document that proposes improvements to the City's existing sanitary sewer system. Planned improvements in the Project range from maintenance to construction of new infrastructure, including improved lift stations and new, extended, or expanded pipelines. The Project does not propose any residential, commercial, or industrial uses. Therefore, the Project would not induce substantial unplanned population growth in an area, either directly or indirectly, and there would be **no impact**.

b. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? ***(No Impact)***

The Project includes improvements to Chico's sanitary sewer infrastructure and does not propose any residential, commercial, or industrial uses. The Project would not displace existing houses or

[41] United States Census Bureau. n.d. Chico City, California. Website: https://www.census.gov/quickfacts/fact/table/chicocitycalifornia/PST045223 (accessed October 2024).

people, demolish any existing housing, or necessitate the construction or replacement of housing. Therefore, **no impact** would occur.

4.16 PUBLIC SERVICES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. 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:				
i. Fire protection?	☐	☐	☐	☒
ii. Police protection?	☐	☐	☐	☒
iii. Schools?	☐	☐	☐	☒
iv. Parks?	☐	☐	☒	☐
v. Other public facilities?	☐	☐	☐	☒

4.16.1 Baseline Conditions

The Project area is served by the Chico Fire Department (CFD), which provides fire protection and emergency medical services, including fire suppression, rescue service, hazardous material emergencies service, public assistance, fire prevention and life safety, and emergency preparedness including operation of the Emergency Operations Center (EOC). The CFD serves a 33-square-mile area and operates out of four stations. It consists of 60 full-time personnel, 57 of whom are uniformed, and 8 active volunteer firefighters. Personnel include a fire chief, division chiefs, support staff, a fire prevention officer, fire inspectors, fire captains, fire apparatus engineers, and firefighters. The City maintains a service ratio of one fire station per 25,826 residents and a personnel ratio of four personnel per 10,000 residents. Along with the services provided by the CFD, First Responders EMS, Inc. provides advanced life support/paramedic ambulance service to the City. First Responders operates out of one station with 16 ambulances spread throughout the Chico, Paradise, and Oroville areas. **Figure 4.16-1, Public Facilities and Services,** depicts all public facilities in the city.

Chico Police Department (CPD) provides law enforcement services to the city. As of 2023, the CPD is authorized for 182 employees, 109 of which are sworn police officers. CPD provides Patrol, K9, Detective, Target, Violence Suppression, School Resource, Crime Scene Investigation, Unmanned Aerial System, Traffic and Parking, Training, Defensive, Field Training, Major Accident Investigation, Wellness, Crisis Negotiation, Special Weapons and Tactics, Narcotics, Bomb Squad, Communications, Property and Evidence, and Community Service services. CPD's headquarters are at 1460 Humboldt Road. CPD also occupies space at the Municipal Services Center. CPD has a service ratio of 1 officer to 929 residents and maintains an average response time to incidents goal of 4 minutes to Priority 1 and 2 calls, 6 minutes to Priority 3 and 4 calls, and 8 minutes to Priority 5,6, and 7 calls.[42]

[42] City of Chico Police Department (CPD). *2023 Annual Report.* Website: https://chico.ca.us/City-Services/Public-Safety/Police-Department/2023-Annual-Report/index.html (accessed October 2024).

Chico Unified School District (CUSD) was established in 1965 and covers a 322-square-mile area, consisting of 23 different schools. Of these schools, 12 are elementary schools, 3 are middle schools, 3 are high schools, and 4 are different types of schools that cater to independent study, continuation, or disabilities. In 2023, it was estimated that there were 12,088 students enrolled in CUSD, with a student-to-teacher ratio of 21.44.[43] CUSD also contains three charter schools: Nord County, Forest Ranch, and Chico Country Day School. Two other Charter schools in Chico—Blue Oak and CORE School—are chartered through the Butte County Office of Education. In 2010, charter school enrollment was approximately 743 students.

CSUC is a State-supported comprehensive university that offers over 400 undergraduate and graduate programs. The main campus consists of 119 acres, located northwest of the City's downtown. The university also maintains 2,330 acres of ecological reserves and an 800-acre farm facility. In 2023, approximately 14,000 students were enrolled at CSUC.[44]

The City currently includes a total of 4,317 acres of park, recreation, and open space areas, including Bidwell Park. Bidwell Park is 3,670 acres and is managed by the City. The park stretches over 10 miles long along Big Chico Creek. Other parks and recreation facilities include school playground and ball field facilities, CSUC recreational areas, Bidwell Mansion State Park, and the Fairgrounds.

4.16.2 Thresholds

4.16.2.1 Chico Urban Area Fire and Rescue Agreement (CUAFRA)

The Chico Urban Area Fire and Rescue Agreement is an operational Letter of Understanding approved by the Fire Chiefs, City Manager, and Chief Administrative Officer guides the daily functioning of CUAFRA. It includes guidelines for a logical transition of the urban area from County to City fire protection. It stipulates the sharing of specialized emergency resources, such as aerial ladder trucks, fire bulldozers, water tenders, wildland fire engines, and volunteer firefighters, the staffing of City Fire Station 6 on the west side of the railroad tracks at SR-32 and West East Avenue, and the establishment of ideal future City and county fire station locations for the northwest corner of the county that avoids facility and staffing duplication. It also details the Closest engine response to all emergencies within the service area.

4.16.2.2 City of Chico Emergency Plan

The objectives of the City's Emergency Plan are to prepare for and facilitate coordinated and effective responses to emergencies in Chico and to provide adequate assistance to other jurisdictions as needed. This plan specifies actions for the coordination of operations, management, and resources during emergencies; governmental responsibilities during emergency events; and a plan for the organization of nongovernmental organizations providing support assistance.

[43] Chico Unified School District. BallotPedia. Website: https://ballotpedia.org/Chico_Unified_School_District,_California (accessed October 2024).

[44] California State University, Chico. 2024. Chico Facts. Website: https://www.csuchico.edu/about/chico-facts.shtml. (accessed November 2024).

4.16.3 Impact Analysis

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

i. Fire Protection? ***(No Impact)***

As previously mentioned, the Project would not construct dwelling units, buildings, businesses, or any other type of facility that would result in increased human population growth in the Project area. Therefore, the Project would not result in any long-term demands on fire protection services. During construction of the proposed improvements, minor impacts may occur on roadways adjacent to the proposed improvements. However, the Project would not interfere with any local or regional adopted emergency routes or increase response times or performance objectives and would not result in substantial adverse physical impacts associated with the provision of such services. Therefore, **no impacts** to fire protection services would occur.

ii. Police protection? ***(No Impact)***

The Project would not result in increased human population growth and would therefore not result in any long-term demands on police protection services. Minor construction impacts may occur but would not interfere with any local or regional adopted emergency routes or increase response times or performance objectives and would not result in substantial adverse physical impacts associated with the provision of such services. Therefore, **no impacts** to police protection services would occur.

iii. Schools? ***(No Impact)***

The Project includes sanitary sewer infrastructure. Operations of the Project would be passive and would not place increasing demands on local schools or educational facilities. The Project does not involve the construction of new homes or buildings or require new or physically altered government facilities. Therefore, **no impacts** to schools would occur.

iv. Parks? ***(Less Than Significant Impact)***

The Project would not result in increased human population growth in the Project area. The Project would not increase demands on existing parks or result in any long-term demands on parks. During construction, minor impacts may occur. However, the Project would not increase the usage of any recreational facilities or result in substantial adverse physical impacts associated with the provision of such services. Minor temporary impacts related to Project construction would be restored to pre-construction conditions. Therefore, impacts would be considered **less than significant**. Mitigation measures are not warranted.

v. Other public facilities? ***(No Impact)***

The Project would not result in short- or long-term demands on any other public facilities. During construction, minor temporary impacts may occur near public facilities but would not impact those facilities. Further, the Project does not involve the construction of addition public facilities. Therefore, **no impacts** to public facilities would occur.

4.17 RECREATION

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

4.17.1 Baseline Conditions

The City currently identifies a total of 37 existing sites that are parks, open space, or recreation centers totaling 4,176 acres. **Figure 4.17-1, Parks,** illustrates parks in the Project area. In addition, several greenways and open space resources exist in the Project area, including Lindo Channel, the Little Chico Creek and Comanche Creek greenways, Bidwell Ranch, Verbena Fields, and Teichert Ponds**. Figure 4.17-2, Open Space Resources,** illustrates open space areas in the Project area.

The City maintains a standard of 2.5 acres of greenways per 1,000 residents, with an additional 8 to 16 parks needed for the projected 2030 population growth.

4.17.2 Thresholds

4.17.2.1 Bidwell Park Master Management Plan

The City is responsible for the management, operation, and maintenance of the 3,670-acre Bidwell Park. In 2008, the City Council adopted the Bidwell Park Master Management Plan,[45] which sets forth the City's vision for the park and establishes policies and practices for operation and management of the park.

4.17.2.2 City of Chico General Plan 2030

Parks, Public Facilities, and Services Element.

- Goal PPFS-4: Maintain a sanitary sewer system that meets the City's existing and future needs, complies with all applicable regulations, and protects the underlying aquifer.
    - Policy PPFS-4.1 (Sanitary Sewer System): Improve and expand the sanitary sewer system as necessary to accommodate the needs of existing and future development.

[45] City of Chico. 2008. Bidwell Park Master Management Plan Update. Website: https://chico.ca.us/Our-Community/Parks-Recreation-and-Experience-the-Outdoors/Park-Documents/Bidwell-Park-Master-Management-Plan/ (accessed November 2024).

- Action PPFS-4.12 (Sanitary Sewer Master Plan): Update and maintain the City's Sanitary Sewer Master Plan, as well as the Sewer System Model, to assure that improvements to the system are identified, planned, and prioritized.

- Policy PPFS-4.2 (Protection of Groundwater Resources): Protect the quality and quantity of groundwater resources, including those that serve existing private wells, from contamination by septic systems.

- Policy PPFS-4.3 (Capacity of Water Pollution Control Plant): Increase system capacity by reducing wet weather infiltration into the sanitary sewer system.

- Policy PPFS-4.4 (Wastewater Flows): Ensure that total flows are effectively managed within the overall capacity of the Water Pollution Control Plant.

4.17.3 Impact Analysis

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? ***(No Impact)***

The Project would not construct dwelling units, buildings, businesses, or other similar facilities that would increase population in the Project area or encourage more people to use existing neighborhood and regional parks or other recreational facilities. The Project aims to provide a reliable sewer system as outlined in the City's General Plan. The Project would not result in the substantial physical deterioration of existing public recreational facilities. Therefore, **no impacts** would occur.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? ***(No Impact)***

The purpose of the Project is to address capacity deficiencies and enhance the efficiency of the existing system. Planned improvements range from maintenance activities to the construction of new infrastructure, including upgraded lift stations and new, extended, or expanded pipelines. While the Project includes enhancements to the City's sewer system, it does not involve improvements to existing recreational facilities or the construction or expansion of recreational facilities that could negatively impact the environment. No proposed improvements would occur within existing parks; however, one Project component identified in the 2025 SSMP would be located adjacent to the lower portion of Bidwell Park. Construction activities would be temporary, and the area will be restored to its pre-construction condition. As a result, **no impact** would occur.

4.18 TRANSPORTATION

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☒	☐
b. Conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)?	☐	☐	☒	☐
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d. Result in inadequate emergency access?	☐	☐	☒	☐

4.18.1 Baseline Conditions

California SR-32 and SR-99 comprise Chico's regional transportation network and serve much of Butte County's population. SR-99 is a north-south highway that runs through the cities of Chico, Biggs, and Gridley in Butte County. In the City, SR-99 is a four-lane freeway. SR-32 is an east-west state highway that consists of a two-lane roadway within the City. Caltrans designates all State highways within Chico as truck routes.

In addition, there are major streets throughout Chico that serve as major arterials. The State highways and major arterials accommodate regional and cross-city travel, while minor arterials, collectors, and local roadways serve short trips throughout the City. Major arterials include Cohasset Road, which runs near CRA; the Esplanade; and the Skyway, which is an east-west expressway that begins in Chico and continues through the Town of Paradise. Collectors and local streets make up the remaining roadway network of Chico. Collectors are intended to "collect" traffic from local roadways. Local streets are intended to serve adjacent properties and speed limits typically do not exceed 25 miles per hour.

Existing traffic volume data for the City and its SOI, discussed below, are based on Chico's General Plan Draft EIR, which uses traffic count data from 2004 through 2009. An updated traffic analysis may be necessary to further assess the existing traffic volumes in 2024.

Vehicle traffic operations conditions at intersections and roadway segments can be described in terms of a level of service (LOS). LOS is a common qualitative measurement of the effects that various factors such as speed, travel time, traffic interruptions, freedom to maneuver, and safety have on traffic operations from the perspective of the driver. Intersection and roadway segment LOS criteria range from A (representing the best conditions) to F (representing overcapacity conditions). LOS E represents "at capacity" operations.

Based on Chico's General Plan DEIR data,[46] the traffic study focused on specific freeway and roadway segments during the p.m. peak hour and specific intersections during the a.m. and p.m. peak hours. As of 2010, when the General Plan Draft EIR was published, the City has strived to maintain LOS C on residential streets and LOS D or better on arterials and connectors, at all intersections, and on principal arterials. The 2010 data indicate that the studied roadway segments and intersections-maintained LOS B, C, and D. All segments operated acceptably, except the Mangrove Avenue/Vallombrosa Avenue intersection, which operated at LOS F during the p.m. peak hour.[47]

4.18.2 Thresholds

4.18.2.1 Senate Bill 743

On December 28, 2018, the California Office of Administrative Law cleared revised CEQA guidelines for use. Among the changes to the guidelines was the removal of vehicle delay and level of service from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on VMT. Simultaneous with the revisions to CEQA guidelines, the Governor's Office of Planning and Research published *The Technical Advisory on Evaluating Transportation Impacts in CEQA* (Governor's Office of Planning and Research, December 2018). While this document does not supersede a lead agency's ability to adopt thresholds for CEQA analysis, it does provide guidance for jurisdictions and lead agencies shift from vehicle delay and level of service analysis to analysis of VMT.

4.18.2.2 2020 Regional Transportation Plan/Sustainable Communities Strategy

The RTP/SCS specifies the policies, projects, and programs necessary over a 20+ year period to maintain, manage, and improve the region's transportation system. The Butte County 2020 RTP/SCS covers the 20-year period between 2020 and 2040. The RTP/SCS is required to be updated every 4 years. The RTP/SCS includes an Air Quality Conformity Analysis and Determination, as well as a Program EIR that supports public transit. The Butte County Association of Governments (BCAG) has recently developed the 2024 update of the RTP/SCS, which was adopted by the BCAG Board of Directors on December 12, 2024.

4.18.2.3 City of Chico General Plan 2030

Circulation Element.

- Goal CIRC-1: Provide a comprehensive multimodal circulation system that serves the build-out of the Land Use Diagram and provides for the safe and effective movement of people and goods.

[46] City of Chico. 2010. 2030 General Plan Draft EIR. Section 4.5, Traffic. Website: https://chico.ca.us/Departments/Community-Development/Planning-Division/General-Plan--Other-Planning-Documents/Draft-EIR-Chico-2030-General-Plan/index.html (accessed November 1, 2024).

[47] Ibid.

- Policy CIRC-1.1 (Transportation Improvements): Safely and efficiently accommodate traffic generated by development and redevelopment associated with build-out of the General Plan Land Use Diagram.
- Policy CIRC-1.2 (Project-level Circulation Improvements): Require new development to finance and construct internal and adjacent roadway circulation improvements as necessary to mitigate project impacts, including roadway, transit, pedestrian, and bicycle facilities.
- Policy CIRC-1.8 (Regional Transportation Planning): Continue to participate in Butte County Association of Government's efforts to coordinate regional transportation planning with other jurisdictions, and continue to consult with Caltrans on transportation planning, operations, and funding to develop the City's circulation system.

- Goal CIRC-3: Expand and maintain a comprehensive, safe, and integrated bicycle system throughout the City that encourages bicycling.
  - Policy CIRC-3.3 (New Development and Bikeway Connections): Ensure that new residential and non-residential development projects provide connections to the nearest bikeways.
- Goal CIRC-5: Support a comprehensive and integrated transit system as an essential component of a multimodal circulation system.
  - Policy CIRC-5.3 (Transit Connectivity in Projects): Ensure that new development supports public transit.

4.18.3 Impact Analysis

*a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? (**Less than Significant Impact**)*

The Project is a planning-level document that proposes improvements to Chico's existing sanitary sewer system. Planned improvements in the Project range from maintenance to construction of new facilities, including improved lift stations and new, extended, or expanded pipelines. Each proposed improvement recommended by the Project would be required to undergo individual project-level environmental review and analysis consistent with CEQA regulations and to implement mitigation measures to reduce any significant environmental impacts. The Project would propose sewer system improvements in existing areas where the sewer system is currently connected. The improvements include changes to sewer system components such as lift stations, gravity mains, and force mains. All these components would be located underground and would not affect the City's circulation system, including transit, roadway, bicycle, and pedestrian facilities. The BCAG RTP/SCS is an applicable plan that discusses Butte County's transportation needs and considers existing and projected land use patterns. As previously discussed in Section 4.11, Land Use and Planning, the Project would not conflict with land use or zoning designations presented in the City's 2030 General Plan. Further analysis of each proposed improvement may be required. Overall, the Project would not conflict with the 2020 BCAG RTP/SCS. Therefore, impacts would be **less than significant**.

*b. Would the project conflict or be inconsistent with CEQA Guidelines §15064.3, subdivision (b)? (**Less than Significant Impact**)*

As discussed above, the Project is a planning-level document that proposes improvements to Chico's existing sewer system and does not propose any circulation or transportation-related improvements. CEQA Guidelines Section 15064.3 (b) outlines the criteria for analyzing transportation impacts 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. Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation 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. For roadway capacity projects, agencies have discretion to determine the appropriate measure of transportation impact consistent with CEQA and other applicable requirements. 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. For many projects, a qualitative analysis of construction traffic may be appropriate.
>
> (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. A lead agency may use models to estimate a project's vehicle miles traveled and may revise those estimates to reflect professional judgment based on substantial evidence. Any assumptions used to estimate vehicle miles traveled and any revisions to model outputs should be documented and explained in the environmental

> document prepared for the Project. The standard of adequacy in Section 15151 would apply to the analysis described in this section."[48]

Section 15064.3 (b)(3) states that a qualitative analysis of construction traffic may be appropriate to estimate VMT for a particular project being considered. VMT is the amount and distance of automobile travel attributable to a project. According to the Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (December 2018),[49] "automobile" refers to "on-road passenger vehicles, specifically cars and light trucks." Thus, construction trucks do not need to be included in the project VMT assessment.

Additionally, the OPR technical advisory recommends VMT screening thresholds for smaller projects. The footnote on page 12 of the OPR technical advisory states the following:

> ***Screening Thresholds for Small Projects***
>
> *Many local agencies have developed screening thresholds to indicate when detailed analysis is needed. Absent substantial evidence indicating that a project would generate a potentially significant level of VMT, or inconsistency with a Sustainable Communities Strategy (SCS) or general plan, projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.*

The OPR technical advisory recommends that projects generating fewer than 110 trips will be assumed to cause a less than significant transportation impact. As such, a project generating 110 daily trips or less is screened out of a VMT analysis due to the presumption of a less-than-significant impact. Fewer than 55 construction workers would be required for each specific project component. Therefore, the project would generate fewer than 110 daily automobile trips and would be below the recommended threshold for small projects. Based on the information currently available, the Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Therefore, impacts would be **less than significant**.

*c. Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (**Less than Significant Impact**)*

The Project is a planning-level document designed to provide guidance on project design and location for sewer improvements throughout the City. For example, the Project includes projects to improve existing lift stations, gravity mains, and force mains. The Project would not change the existing circulation design of the Project area with geometric design features upon completion of the project components. Proposed improvements are expected to occur underground and would not physically alter any existing design feature of the Project area upon completion. As such, the

[48] Association of Environmental Professionals (AEP). 2024. *State CEQA Guidelines,* Section 15064.3, Subsection (b), Determining the Significance of Transportation Impacts.

[49] Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in CEQA. December. Website: http://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf (accessed May 2023).

Project is not anticipated to cause a substantial increase in hazards due to geometric design features or incompatible uses. The proposed improvements under the Project would require further site-specific assessment to ensure consistency with CEQA. At this time, there is no Project-specific information available to assess their impacts related to hazards due to a geometric design feature. Overall, impacts related to the Project's geometric design features are **less than significant**.

*d. Would the project result in inadequate emergency access? (**Less than Significant Impact**)*

In the short-term, implementation of the Project would have the potential to affect emergency access during construction of individual projects included in the SSMP. The implementing agency for each improvement project would be responsible for preparation of traffic control plans during construction and coordinating with the emergency service providers to ensure that emergency routes remain available. In the long term, the Project does not include any specific projects that would result in inadequate emergency access. Therefore, the Project would not result in inadequate emergency access, and impacts would be **less than significant**.

4.19 TRIBAL CULTURAL RESOURCES

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? Or	☐	☐	☒	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

4.19.1 Baseline Conditions

The City is located in the Central area of California, within the boundaries of Konkow or Northwestern Maidu territory, and is still home to a vibrant Native American community as exemplified by the Mechoopda Tribe of the Chico Rancheria. Known as the Mechoopda, these native people originally lived in a village community on Little Butte Creek, less than 4 miles south of downtown Chico. Following John Bidwell's acquisition of the Spanish Land Grant and Rancho Arroyo Chico, the Mechoopda moved to the south side of Chico Creek near First and Flume streets in what is now downtown Chico. In 1868, the tribe relocated to the Chico Rancheria. The Mechoopda became a federally recognized tribe in 1992 and re-established residency in Chico by purchasing 30 houses for tribe members and 40 acres of almonds. A total of 650 acres south of Chico were acquired as "restored lands."[50]

Today, the Mechoopda Tribe is a federally recognized tribe consisting of 560 Tribal Members and governed by a Tribal Council elected by the general membership. The Mechoopda now have the Chico Rancheria Housing Corporation and the Mechoopda Economic Development Cooperation, along with other steps toward economic self-sufficiency and independence.

[50] Mechoopda Indian Tribe. n.d. Mechoopda Indian Tribe of Chico Rancheria History. Website: https://www.mechoopda-nsn.gov/history (accessed October 30, 2024).

4.19.2 Thresholds

4.19.2.1 Assembly Bill 52

The Native American Historic Resource Protection Act, or AB 52, defines guidelines for reducing conflicts between Native Americans and development projects and activities. Projects are subject to AB 52 if an NOP for an EIR is filed or a Notice of Intent to adopt a Negative Declaration or MND is filed on or after July 1, 2016. "Tribal cultural resources" are protected under CEQA and are defined as a site, feature, place, cultural landscape (must include the size and scope of the landscape), sacred place, or object with a cultural value to a California Native American tribe that is either included or eligible for inclusion in the CRHR or included in a local register of historical resources. At the lead agency's discretion, a resource can be treated as a tribal cultural resource if a Native American tribe provides substantial evidence. Additionally, AB 52 allows tribes to engage in consultation with lead agencies and sets guidelines for such consultation.

4.19.2.2 Memorandum of Understanding City of Chico and the Mechoopda Indian Tribe of Chico Rancheria

In June 2008, the City Council entered into a Memorandum of Understanding (MOU) between the City and the Mechoopda Indian Tribe of the Chico Rancheria, committing to establish a protocol for consultation between the City and the tribe.

4.19.2.3 City of Chico General Plan 2030

Cultural Resources and Historic Preservation Element.

- Goal CRHP-3: Engage in and facilitate preservation efforts with local preservation and cultural entities.
    - Policy CRHP-3.1 (Partnerships to Preserve Heritage Resources): Foster partnerships with interested parties to preserve heritage resources.

4.19.3 Impact Analysis

a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? ***(Less Than Significant Impact)***

The Project is located within the City and its SOI, where the Mechoopda Tribe has a rich cultural history and where the tribe still resides today. Per AB 52 (specifically, PRC Section 21080.3.1), as lead agency, the City must consult California Native American tribes that are traditionally and culturally affiliated with the geographic area of the Project and have previously requested that the lead agency provide the tribe with notice of such projects.

According to the City's General Plan Draft EIR, a records search was conducted at the Northeast Information Center of the California Historical Resources Information System at CSUC for the City in October 2007. Based on the Draft EIR, there are 244 known archaeological sites and isolated features/artifacts within the General Plan Planning Area.[51] The majority of the prehistoric sites were along Mud Creek and Big Chico Creek, which were considered areas of high archaeological sensitivity because Mechoopda villages were located along these areas as recent as the 19th century.

The Project may have potential impacts to cultural and tribal resources located along creeks. Per the established MOU between the City and the Mechoopda tribe, the City would inform the tribe prior to the implementation of any Project improvements to ensure compliance with the MOU and AB 52. In addition, any future physical improvements would be subject to separate environmental review on a project-specific basis. Therefore, the adoption of the Project would have a **less than significant** related to tribal cultural resources, and no mitigation is warranted.

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. ***(Less Than Significant Impact)***

The 2025 SSMP is a programmatic document and is intended to guide the sewer system improvement within the City. Any future physical improvements would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines.* In addition, individual projects contemplated under the 2025 SSMP would be evaluated for site-specific impacts to tribal cultural resources and would include appropriate mitigation as agreed upon through tribal consultation and the MOU process. The 2025 SSMP is a programmatic document intended to guide development of future projects within the City and does not directly authorize any physical activities. Any future physical projects would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines.* In addition, individual projects contemplated under the 2025 SSMP would be evaluated for site-specific impacts to tribal cultural resources and would include appropriate mitigation as necessary to address impacts related to any known tribal cultural resources that have been listed or been found eligible for listing in the CRHR, in a local register of historical resources as defined in PRC Section 5024.1, or as agreed upon through the MOU. Therefore, adoption of the 2025 SSMP would have a **less than significant impact** related to tribal cultural resources, and no mitigation is required.

[51] City of Chico. 2010. *2030 General Plan Draft EIR.* Section 4.11, Cultural Resources. Website: https://chico.ca.us/Departments/Community-Development/Planning-Division/General-Plan--Other-Planning-Documents/Draft-EIR-Chico-2030-General-Plan/index.html (accessed November 1, 2024).

4.20 UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☐	☒
c. 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?	☐	☐	☐	☒
d. 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?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

4.20.1 Baseline Conditions

The City receives its water supply through the California Water Service Company, Chico-Hamilton City District. The City owns and operates Chico's sewer system, made up of gravity mains, force mains, and lift stations that convey flow to the WPCP.

Electric and natural gas service in the City and county, including the Project area, is provided by PG&E. Telephone and Internet service providers include Verizon Wireless, Cingular, Sprint, AT&T, Metro PCS, Pacific Bell, 2B Telecom, Norcal Wireless, and Comcast.

Solid waste services for the City are provided by North Valley Waste Management (NVWM). NVWM offers residential garbage, recycling, and green waste pickup in the City. The majority of solid waste generated in the City is disposed of at the Neal Road Sanitary Landfill, which is owned by Butte County and operated by the Butte County Public Works Department. The Neal Road Landfill is permitted to accept municipal solid waste, inert industrial waste, demolition materials, special wastes containing nonfriable asbestos, and seepage. According to the California Department of Resources Recycling and Recovery (CalRecycle), the Neal Road facility is expected to operate through 2048 and has a maximum capacity of 25,271,900 cubic yards.[52]

[52] California Department of Resources Recycling and Recovery (CalRecycle). n.d. Neal Road Recycling and Waste Facility Site Activity Details. Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/110?siteID=108 (accessed November 4, 2024).

4.20.2 Thresholds

4.20.2.1 City of Chico General Plan 2030

Parks, Public Facilities, and Services Element.

- Goal PPFS-4: Maintain a sanitary sewer system that meets the City's existing and future needs, complies with all applicable regulations, and protects the underlying aquifer.
    - Policy PPFS-4.1 (Sanitary Sewer System): Improve and expand the sanitary sewer system as necessary to accommodate the needs of existing and future development.

4.20.3 Impact Analysis

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects? ***(Less Than Significant Impact)***

The City operates its local sewer lines within Chico, and wastewater treatment is provided at the WPCP and the 2025 SSMP. The Project would update, improve, restore, and add additional sanitary improvements to support existing uses and City population growth as outlined in the General Plan build-out. The Project would include temporary construction impacts but these would be minor in nature. Each Project area disturbed would be restored to pre-construction conditions. The 2025 SSMP is a programmatic document and is intended to guide development of future parks and recreation projects within the City; it does not directly authorize any physical development or improvements. Any future Project facility improvements would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines.* In addition, individual projects contemplated would be evaluated for site-specific impacts to utilities and service systems and would include appropriate mitigation as necessary to address impacts related to relocation or construction of new or expanded water, wastewater treatment, storm drainage, electric power, natural gas, or telecommunications facilities. Therefore, the Project would result in a **less than significant impact** associated with the relocation or construction of new or expanded water, wastewater treatment, storm drainage, electric power, natural gas, or telecommunications facilities.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? ***(No Impact)***

The Project outlines improvements to the existing sewer systems and would not result in direct or indirect population growth that would lead to increased demand for water supplies. The City is serviced by California Water Service's (Cal Water) Chico-Hamilton City District, which is expected to be able to serve water supply demands in all year types through 2045. Therefore, **no impacts** related to sufficient water supply to service the Project now or in the foreseeable future would occur.

c. Would the project 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? ***(No Impact)***

Implementation of the Project would improve the existing wastewater sewer treatment system and would not increase wastewater treatment demand, but it would result in improving the sewer system infrastructure to better serve the City's population. Therefore, the Project would have **no impact** on wastewater treatment capacity.

d. Would the project 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 Impact)***

Waste Management provides trash and recycling disposal within the City and its SOI. Solid waste from Chico is transferred to the Neal Road Waste Facility in the Town of Paradise, approximately 10 miles south of the City. According to CalRecycle, the Neal Road facility is expected to operate through 2048 and has a maximum capacity of 25,271,900 cubic yards.[53] As such, the Neal Road facility has adequate capacity to accommodate the waste disposal needs of the Project. The solid waste generated by the Project would include typical construction and pipeline materials. The solid waste generated by Project construction would be recycled to the extent feasible and disposed of in accordance with City and County policies. Operation of the Project would not result in the generation of solid waste beyond current expenditures. The Project would not generate solid waste in excess of the local infrastructure capacity or impair the attainment of solid waste reduction goals. Impacts would be **less than significant**.

f. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste? ***(Less Than Significant Impact)***

The Project would not generate solid waste in excess of typical construction and pipeline replacement projects and would recycle to the extent feasible and dispose of construction solid waste in the appropriate approved landfill. Therefore, impacts would be **less than significant** related to federal, State, and local solid waste standards or generation of solid waste in excess of the capacity of local infrastructure.

[53] CalRecycle. n.d. Neal Road Recycling and Waste Facility Site Activity Details. Website: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/110?siteID=108 (accessed November 4, 2024).

4.21 WILDFIRE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b. 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?	☐	☐	☒	☐
c. 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?	☐	☐	☒	☐
d. 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?	☐	☐	☒	☐

4.21.1 Baseline Conditions

Wildfires are defined as uncontrolled fire spreading through vegetative fuels, which can pose danger and cause destruction to life and property. Wildfires can occur in undeveloped areas and spread to urban areas where structures and other human development are more concentrated. A wildland-urban interface is an area where urban development is in proximity to open space, or "wildland" areas. Wildland fire hazards exist in varying degrees over approximately 70 percent of Butte County, which has an extensive history of large damaging fires. The Project area has experienced several fires in recent years. Most recently, the Park Fire burned 429,603 acres in Butte and Tehama counties from August 24, 2024, to October 1, 2024, originating off the upper park road in Bidwell Park, Chico. The fire damaged 54 structures and destroyed 709 structures.[54] In the past 55 years, seven wildfires larger than 30 acres have been reported in Bidwell Park, burning through oak woodlands and chaparral along the north canyon face above Big Chico Creek in the Middle and Upper Park areas.[55] The Project contains significant areas of foothills that are subject to wildland fires. Bidwell Park and the surrounding land and eastern foothills are most prone to wildfires and are classified as Very High Fire Hazard Severity Zones.

54 CAL FIRE. Park Fire. Website: https://www.fire.ca.gov/incidents/2024/7/24/park-fire (accessed October 2024).

55 City of Chico. 2010. General Plan Draft EIR. Human Health/Risk of Upset. September. Website: https://chico.ca.us/documents/Departments/Community-Development/Planning-Division/General-Plan--Other-Planning-Documents/Draft-EIR-Chico-2030-General-Plan/4.4humanhealthriskofupset.pdf (accessed November 2024).

4.21.2 Thresholds

4.21.2.1 California Department of Forestry and Fire Protection

CAL FIRE is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. CAL FIRE provides fire assessment and firefighting services for lands within SRAs, conducts educational and training programs, provides fire planning guidance and mapping, and reviews General Plan Safety Elements to ensure compliance with State fire safety requirements.

The Board of Forestry and Fire Protection is a government-appointed approval body within CAL FIRE. It is responsible for developing the general forest policy of the State, for determining the guidance policies of CAL FIRE, and for representing the State's interest in federal forestland in California. The Board of Forestry and Fire Protection also promulgates regulations and approves General Plan Safety Elements that are adopted by local governments for compliance with State statutes.

The California Office of the State Fire Marshal supports the mission of CAL FIRE by focusing on fire prevention. These responsibilities include regulating buildings in which people live, congregate, or are confined; controlling substances and products that may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire; providing statewide direction for fire prevention within wildland areas; regulating hazardous liquid pipelines; developing and renewing regulations and building standards; and providing training and education in fire protection methods and responsibilities. These are accomplished through major programs, including engineering, education, enforcement, and support from the Board of Forestry and Fire Protection. For jurisdictions within SRAs or Very High Fire Hazard Severity Zones, the Land Use Planning Program division of the Office of State Fire Marshal reviews Safety Elements during the update process to ensure consistency with California Government Code Section 65302(g)(3).

Together, the Board of Forestry and Fire Protection, the Office of the State Fire Marshal, and CAL FIRE protect and enhance the forest resources of all wildland areas of California that are not under federal jurisdiction. The CAL FIRE Land Use Planning Program and the Resource Protection Committee of the California Board of Forestry and Fire Protection reviewed the Butte County Safety Element. The Butte County Fire Department contracts with CAL FIRE for fire protection services throughout the county.

4.21.2.2 Fire Hazard Severity Zones and Responsibility Areas

CAL FIRE designates Fire Hazard Severity Zones as authorized under California Government Code Sections 51175 et seq. CAL FIRE considers many factors when designating fire severity zones, including fire history, existing and potential vegetation fuel, flame length, blowing embers, terrain, and weather patterns for the area. CAL FIRE designates Fire Hazard Severity Zones within three types of areas, depending on what level of government is financially responsible for fire protection:

- **Local Responsibility Area (LRA):** Incorporated communities are financially responsible for wildfire protection. There is one severity zone in the LRA, which is the Very High Fire Hazard Severity Zone.

- **SRA:** CAL FIRE and contracted counties are financially responsible for wildfire protection. There are three hazard zones in SRAs: moderate, high, and very high.

- **Federal Responsibility Area (FRA):** Federal agencies, such as the United States Forest Service (USFS), National Park Service, Bureau of Land Management, United States Department of Defense, United States Fish and Wildlife Service, and Department of the Interior are responsible for wildfire protection.

4.21.2.3 2024 Strategic Fire Plan for California

CAL FIRE produced the 2024 Strategic Fire Plan for California, which contains goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments (CAL FIRE 2024). The 2024 Strategic Fire Plan for California focuses on fire prevention and suppression activities to protect lives, property, and ecosystems, in addition to providing natural resource management to maintain State forests as a resilient carbon sink to meet California's climate change goals. A key component of the 2024 Strategic Fire Plan for California is the collaboration between communities to ensure fire suppression and natural resource management is successful (CAL FIRE 2024).

4.21.2.4 Wildland-Urban Interface Areas

Chapter 49 of the California Fire Code, Requirements for Wildland Urban Interface Fire Areas, applies to any geographical area identified as a Fire Hazard Severity Zone by CAL FIRE. This section defines Fire Hazard Severity Zones and connects to the SRA Fire Safe Regulation requirements for defensible space, as well as parallel requirements for wildfire protection, building construction, and hazardous vegetation fuel management in other sections of the CCR and the PRC.

4.21.2.5 Bidwell Park Master Management Plan

The Bidwell Park Master Management Plan Update was adopted by the City in 2008. It includes a Natural Resources Management Plan (NRMP), which provides a framework for managing resources in the park that meets established park-wide goals and objectives. The NRMP provides an overview of the ecological role of fire as well as a discussion of the history of wildland fire and the fire environment in Bidwell Park. Among its findings were that the park presents a serious potential for extreme wildfire events due to high fuel loads; steep, irregular topography; and local climate.

Fire management in Bidwell Park consists of two main objectives (EDAW 2008)[56]:

- Reduce the probability of wildfire within the park that threatens park visitors, park facilities, and surrounding landowners and residents.

- Safely use prescribed fire as a management tool to treat invasive plants and improve habitat for native plants and wildlife.

[56] City of Chico. 2008. Bidwell Park Master Management Plan. July. Website: https://chico.ca.us/Our-Community/Parks-Recreation-and-Experience-the-Outdoors/Park-Documents/Bidwell-Park-Master-Management-Plan/.

Wildfire reduction and management strategies for the park include:

- Fuels management
- Wildfire detection and reporting
- Wildfire pre-suppression and suppression
- Prescribed burning
- Post-fire rehabilitation

4.21.2.6 City of Chico Municipal Code

Chapter 16.42, Fire Regulations, of the CMC contains fire regulations adopted to safeguard life and property from the hazards of fire and explosion arising from the storage, handling, and use of hazardous substances, materials, and devices, and from conditions hazardous to life or property in the use or occupancy of buildings or structures. The CMC requires permits for certain hazardous activities and operations and inspections to determine whether such activities or operations can be conducted in a manner that complies with the fire regulation standards and in a manner that will not cause a fire or contribute to its spread.

4.21.2.7 City of Chico Emergency Response/Evacuation Plan

The City is responsible for emergency operations within City boundaries. The City's Emergency Management Plan specifies actions for the coordination of operations, management, and resources during emergencies in Chico; governmental responsibilities during emergency events; and a plan for the organization of nongovernmental agencies providing support assistance.

4.21.2.8 City of Chico General Plan 2030

Safety Element.

- Goal S-4: Continue to provide effective and efficient fire protection and prevention services to Chico area residents.
    - Policy S-4.3 (Fire Safety Standards and Programs): Support the development and implementation of standards and programs to reduce fire hazards and review development and building applications for opportunities to ensure compliance with relevant codes.
    - Policy S-4.4 (Vegetation Management): Support vegetation management and weed abatement programs that reduce fire hazards.

4.21.3 Impact Analysis

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan? ***(Less than Significant Impact)***

As previously discussed, the Project is a planning level document that identifies proposed future improvements to the City's Sanitary Sewer System, and any future improvements would be subject to individual environmental review. Therefore, the City's Public Works Department would be required to review traffic plans, including traffic detours, route changes or lane closures, prior to the

implementation of each project to avoid impacts to the City's emergency response and emergency evacuation plans during Project construction. Operation of the Project would be passive and would not impair an adopted emergency response plan or emergency evacuation plan. Therefore, the Project would not impair these plans and impacts would be **less than significant**.

b. Would the project, 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? ***(Less Than Significant Impact)***

According to the CAL Fire Hazard Severity Map, eastern portions of the City and its SOI are located in high and very high fire hazard severity zones. These zones are also located in the SRA.[57] **Figure 4.21-1 Fire Severity Zones** illustrates Fire Hazard Zones in the Project area. The Project, which serves as a planning-level document and proposes improvements to the City's existing sewer system, would not exacerbate wildfire risk. In addition, all improvements proposed by the Project would be required to comply with all federal, state, regional, and local laws, codes, and regulations applicable to the Project. The Draft Plan Update is a programmatic document intended to guide development of future projects within the City and does not directly authorize any physical activities. Any future projects would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines*. Therefore, adoption of the 2025 SSMP would result in a **less than significant impact** associated with wildfire prevention or management, and no mitigation is required.

c. Would the project 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? ***(Less Than Significant Impact)***

According to the CAL FIRE Hazard Severity Map, eastern portions of the City and its SOI are located in High and Very High Fire Hazard Severity Zones. These zones are also located in the SRA.[58] **Figure 4.21-1, Fire Severity Zones,** illustrates Fire Hazard Zones in the Project area. The Project proposes improvements to the City's existing sewer system, some of which are in High and Very High Fire Hazard Severity Zones. Individual projects contemplated under the 2025 SSMP would be evaluated for site-specific impacts to wildfire and would include appropriate mitigation as necessary to address impacts related to wildfire prevention or management. Additionally, individual projects would be reviewed for consistency with the City's Safety Element, Municipal Code, and Construction and Fire Prevention Regulations. Therefore, adoption of the 2025 SSMP would result in a **less than significant** impact associated with wildfire prevention or management, and no mitigation is required.

57 CAL FIRE. n.d. Fire Hazard Severity Zone Viewer. Website: https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/ (accessed October 2024).

58 CAL FIRE. n.d. Fire Hazard Severity Zone Viewer. Website: https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/ (accessed October 2024).

d. Would the project 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? ***(Less Than Significant Impact)***

Landslides can be triggered by both natural and human-induced changes in the environment, resulting in slope instability. Most of the Project area has moderate to low landslide potential, apart from the eastern portion in the foothills, which has a moderate to high potential for landslides. The Project is located in relatively flat lands and is within existing developed areas with existing infrastructure. Therefore, the Project would not 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, and any impacts would be **less than significant.**

4.22 MANDATORY FINDINGS OF SIGNIFICANCE

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

4.22.1 Impact Analysis

a. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? ***(Less Than Significant)***

As described in Section 4.5, Biological Resources; Section 4.6, Cultural Resources; Section 4.19, Tribal Cultural Resources; and Section 4.21, Wildfire, the Project may have potential to impact the environment.

The biological database and literature review identified 29 special-status plant species, 48 special-status animal species, eight sensitive natural communities including riparian habitat, potential wildlife linkages, and potential wildlife nursery sites within the City's SOI. Direct impacts to special-status species, including but not limited to the valley elderberry longhorn beetle, Crotch's bumble bee, monarch butterfly, northwestern pond turtle, western spadefoot, coast horned lizard, giant gartersnake, burrowing owl, Swainson's hawk, nesting birds, bats, and American badger related to construction of future projects under the SSMP could include direct harm or mortality to individuals and to occupied habitat.

In addition, the literature and database review identified Coastal and Valley Freshwater Marsh, Great Valley Cottonwood Riparian Forest, Great Valley Mixed Riparian Forest, Great Valley Oak Riparian Forest, Great Valley Willow Scrub, Northern Basalt Flow Vernal Pool, Northern Hardpan

Vernal Pool, and Northen Volcanic Mud Flow Vernal Pool as sensitive natural communities within the Project area, intersecting with designated federal critical habitat for vernal pool fairy shrimp (*Branchinecta lynchi*), vernal pool tadpole shrimp (*Lepidurus packardi*), and Butte County meadowfoam (*Limnanthes floccosa ssp*. *californica*). Direct impacts to sensitive natural communities could include loss of habitat, while indirect impacts could include introduction of nonnative invasive species into wetland habitats.

The Project area contains native habitat, riparian corridors, and wildlife movement corridors, which have the potential to support breeding by a wide variety of animals. Direct impacts to wildlife movement and nursery sites could include loss of habitat and disruption of movement due to noise, vibration, and increased human presence during construction of future projects, while indirect impacts could result if animals are discouraged from utilizing these areas in subsequent years.

Based on the results of the cultural records search, there have been 387 prehistoric and historic/built environment resources formally documented, and seven additional resources informally noted within the project area. Therefore, there is potential for previously unknown pre-contact archaeological deposits to be unearthed during construction activities, which would constitute a substantial adverse change to a historical resource, as defined in *State CEQA Guidelines* Section 15064.5. In the event that archaeological resources are discovered at any time during Project construction, impacts to these resources could be potentially significant.

Although no human remains are anticipated in previously disturbed area, there is always a possibility of encountering unanticipated cultural resources, including human remains, during construction activities.

Portions of the Project area are located in very high fire hazard severity zones. Therefore, future projects under the SSMP and surrounding areas would be subject to high fire risk during construction and operation, constituting a potential adverse impact to fish and wildlife populations, communities, and habitats.

As described in Section 4.4, Biological Resources; Section 4.5, Cultural Resources; and Section 4.18, Tribal Cultural Resources, the Draft Plan Update is a programmatic document intended to guide future 2025 SSMP projects within the City and does not directly authorize any physical development or improvements. Any future physical park and facility improvements would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines.* In addition, individual projects contemplated under the 2025 SSMP would be evaluated for site-specific impacts to biological, cultural, and tribal cultural resources, and would include appropriate mitigation as necessary. Furthermore, the 2025 SSMP does would not conflict with City policies on protecting and enhancing biological or cultural resources or preclude the City from achieving its resource protection goals. Therefore, adoption of the 2025 SSMP would result in a **less than significant impact** related to adverse impacts to biological, cultural, and tribal resources. No mitigation is required.

*b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? **(No Impact)***

The Project is a programmatic document and is intended to guide the development of future sewer projects within the City. Any improvements would be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines*. The Project is fully in compliance with the City and County General Plans and was analyzed from assumed capacity at full build out. Therefore, the Project would result in **no impact** regarding cumulatively considerable impacts, and no mitigation is required.

*c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? **(Less Than Significant Impact)***

As described in Section 4.4, Air Quality; Section 4.11, Hydrology and Water Quality; and Section 4.21, Wildfire, the Project may have the potential to impact human beings directly or indirectly.

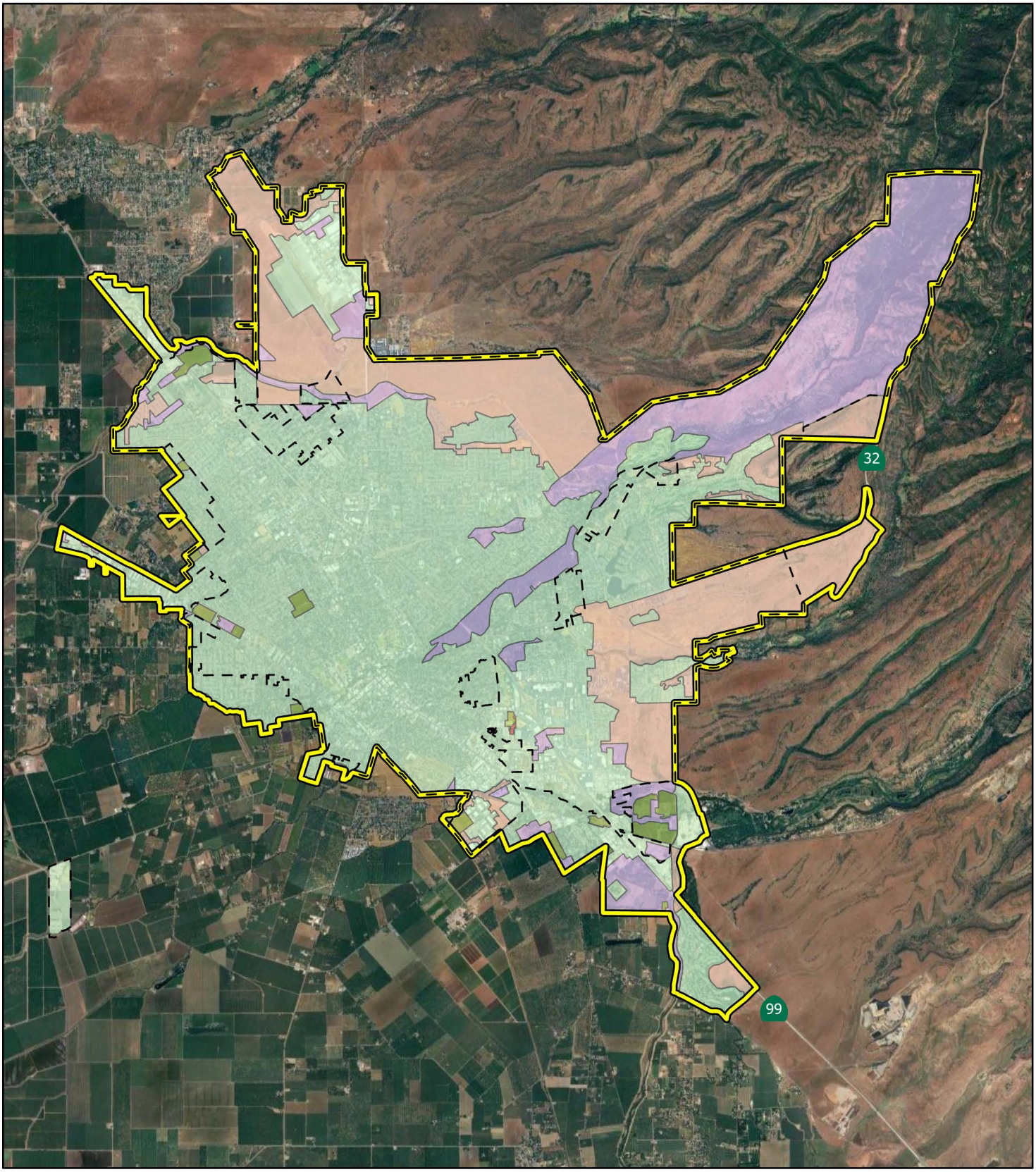
While construction of the Project would not exceed the BCAQMD daily thresholds for ROG, NO_X, or PM_{10} emissions, the maximum annual NO_X emissions would exceed the BCAQMD threshold of 4.5 tons per year. Emissions in excess of BCAQMD thresholds may pose health risks to sensitive populations, including individuals in residential areas, schools, daycare centers, nursing homes, and medical centers. These emissions would occur during the grading and excavation phases of future projects under the SSMP, resulting in a potentially significant impact during construction. Therefore, construction of the proposed project would not result in emissions in excess of BCAQMD thresholds that could potentially adversely impact human beings.

Construction activities could temporarily degrade water quality to a local stream or storm drain system as excavation and other construction activities could lead to increased erosion, sedimentation, and the generation of water pollutants, including trash, construction materials, and equipment fluids. Additionally, the accidental release of hazardous materials including spills, leakage, or improper handling and storage of substances such as oils, fuels, chemicals, metals, and other substances from vehicles, equipment, and materials used during project construction could contribute to stormwater pollutants or leach to underlying groundwater. In such an instance, applicable water quality standards and waste discharge requirements could be violated, and polluted runoff could substantially degrade water quality in the local storm drain system, resulting in a potentially significant adverse impact to the public.

Portions of the project area are located in very high fire hazard severity zones. Therefore, future projects under the SSMP and surrounding areas would be subject to high fire risk during construction and operation, constituting a potential adverse impact to the public.

The 2025 SSMP would help the City meet its sanitary sewer needs and would not create significant, adverse impacts on humans, either directly or indirectly. The 2025 SSMP is a programmatic document intended to guide future projects within the City and does not directly authorize any physical development or improvements. Any future physical park and facility improvements would

be subject to separate environmental review on a project-specific basis, in accordance with the provisions of CEQA and the *State CEQA Guidelines*. In addition, individual projects contemplated under the 2025 SSMP would be evaluated for direct and indirect environmental effects on human beings and would include appropriate mitigation as necessary. Therefore, adoption of the Draft Plan Update would result in a **less than significant impact** related to effects on human beings, and no mitigation is required.



LSA

City of Chico Sphere of Influence
City Boundary
California Important Farmland
D - Urban and Built-Up Land
G - Grazing Land
P - Prime Farmland
U - Unique Farmland
X - Other Land

FIGURE 4.3-1

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0 0.75 1.5
Miles

Chico Sewer Master Plan Update

City of Chico Designated Farmland Areas

SOURCE: Google Maps (2023); California Department of Conservation (2018)

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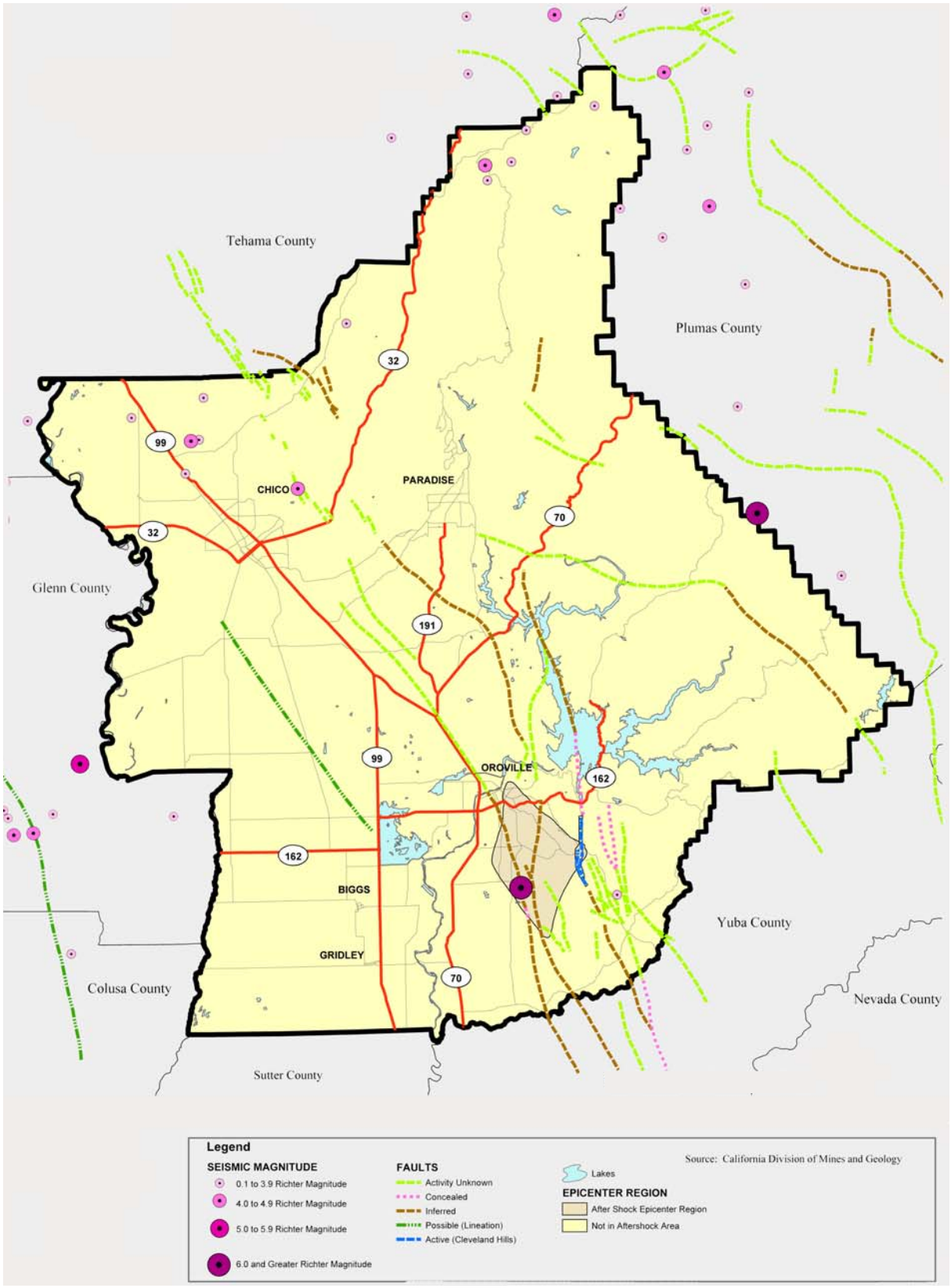

FIGURE 4.7-1

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SOURCE: Butte County General Plan, 2003; California Division of Mines & Geology

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Chico Sewer Master Plan Update

Active Faults

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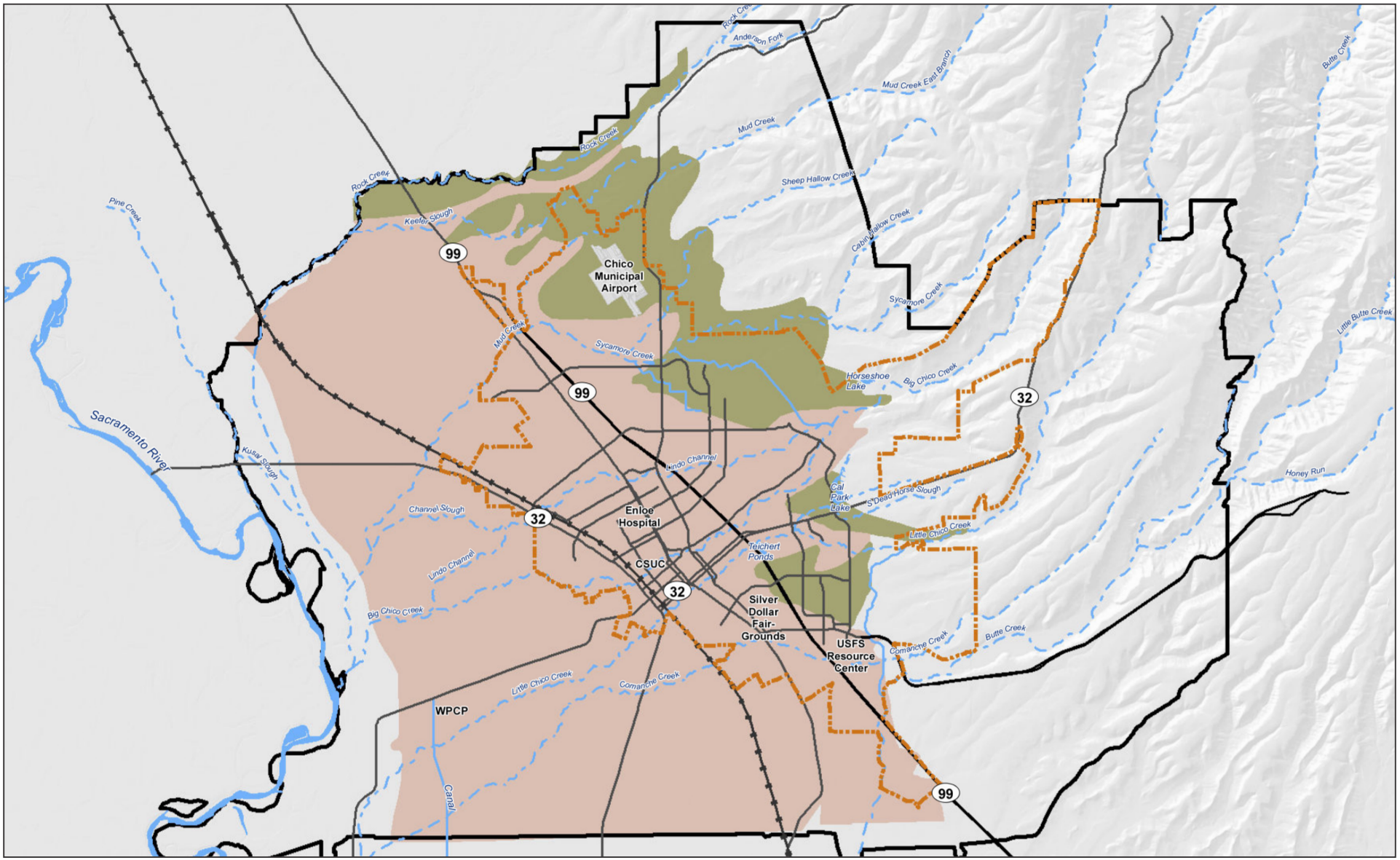

LSA

FIGURE 4.8-2

LEGEND

- Highly Expansive Soils
- Moderate to Highly Expansive Soils
- City of Chico Sphere of Influence Boundary
- Chico Planning Area Boundary

0 1.5 3
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SOURCE: Brandman Associates, 1967

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Chico Sewer Master Plan Update

Expansive Soil Areas

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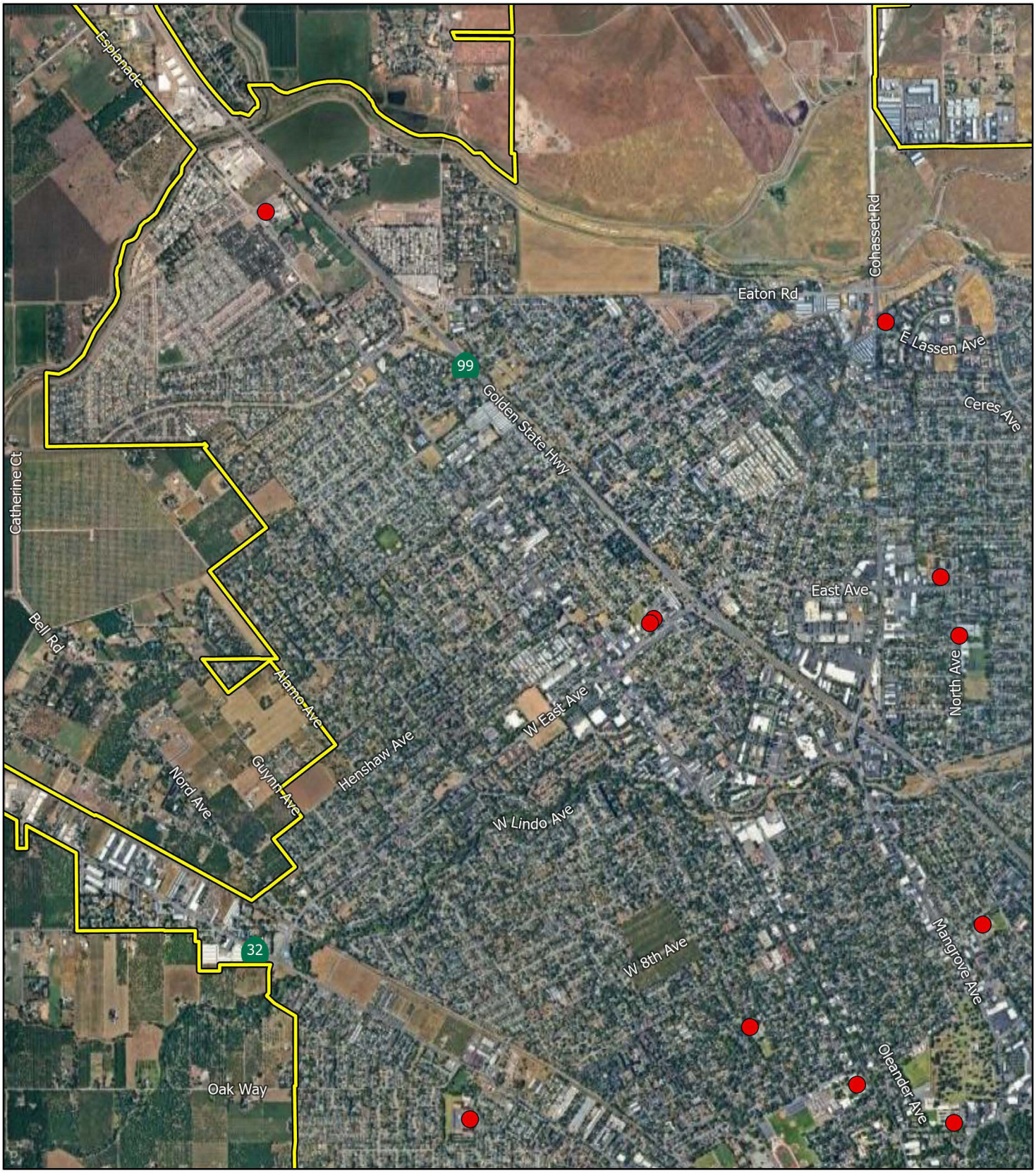

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City of Chico Sphere of Influence

Schools

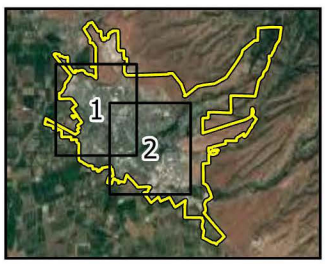

FIGURE 4.10-1
Sheet 1 of 2

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SOURCE: Google Maps (2023)

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Chico Sewer Master Plan Update

Schools in Project Area

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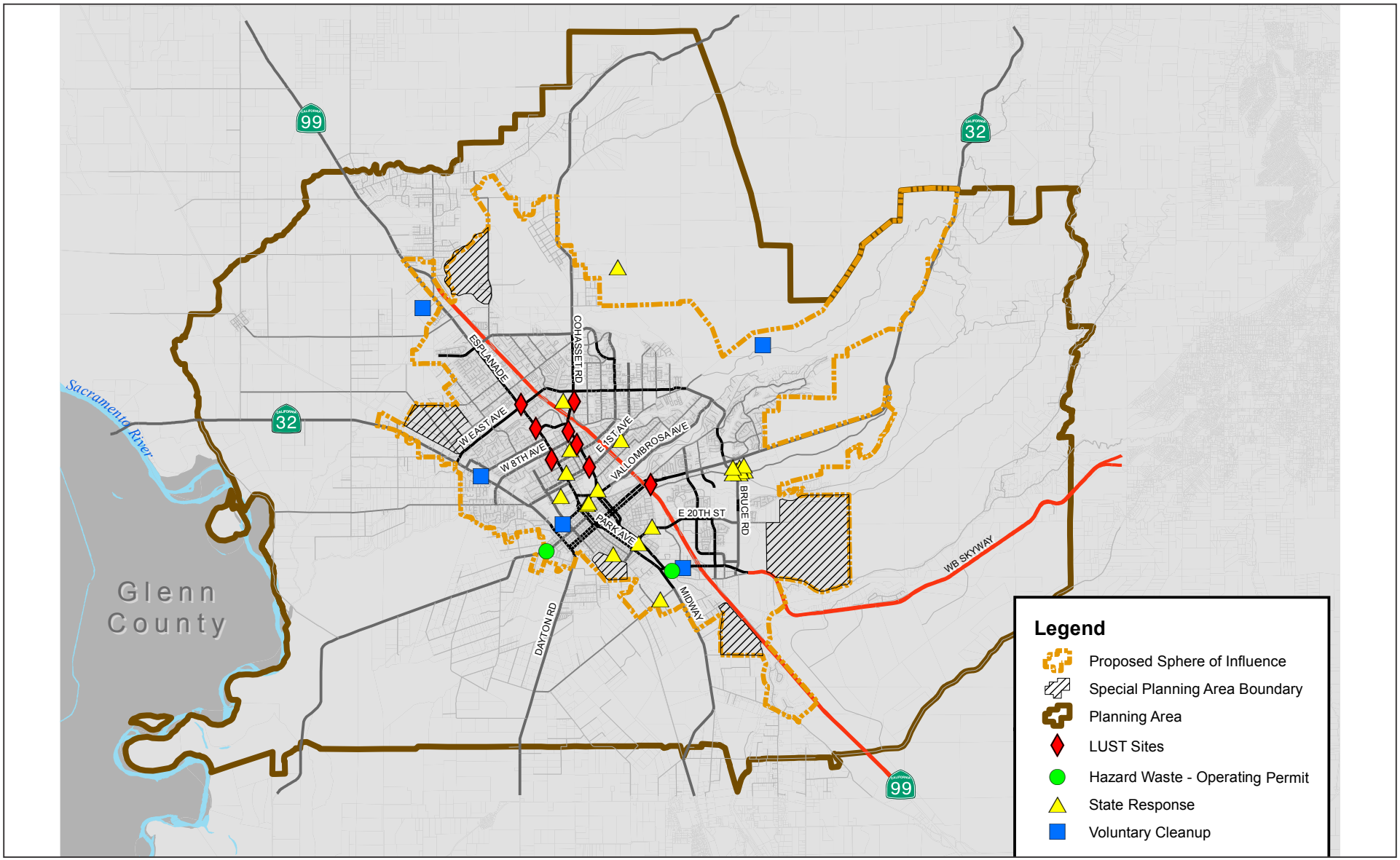

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FIGURE 4.10-2

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SOURCE: City of Chico GIS, PMC, CA DTSC EnviroStar, CA SWRCB Geotracker

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Chico Sewer Master Plan Update

Hazardous Material Sites in Project Area

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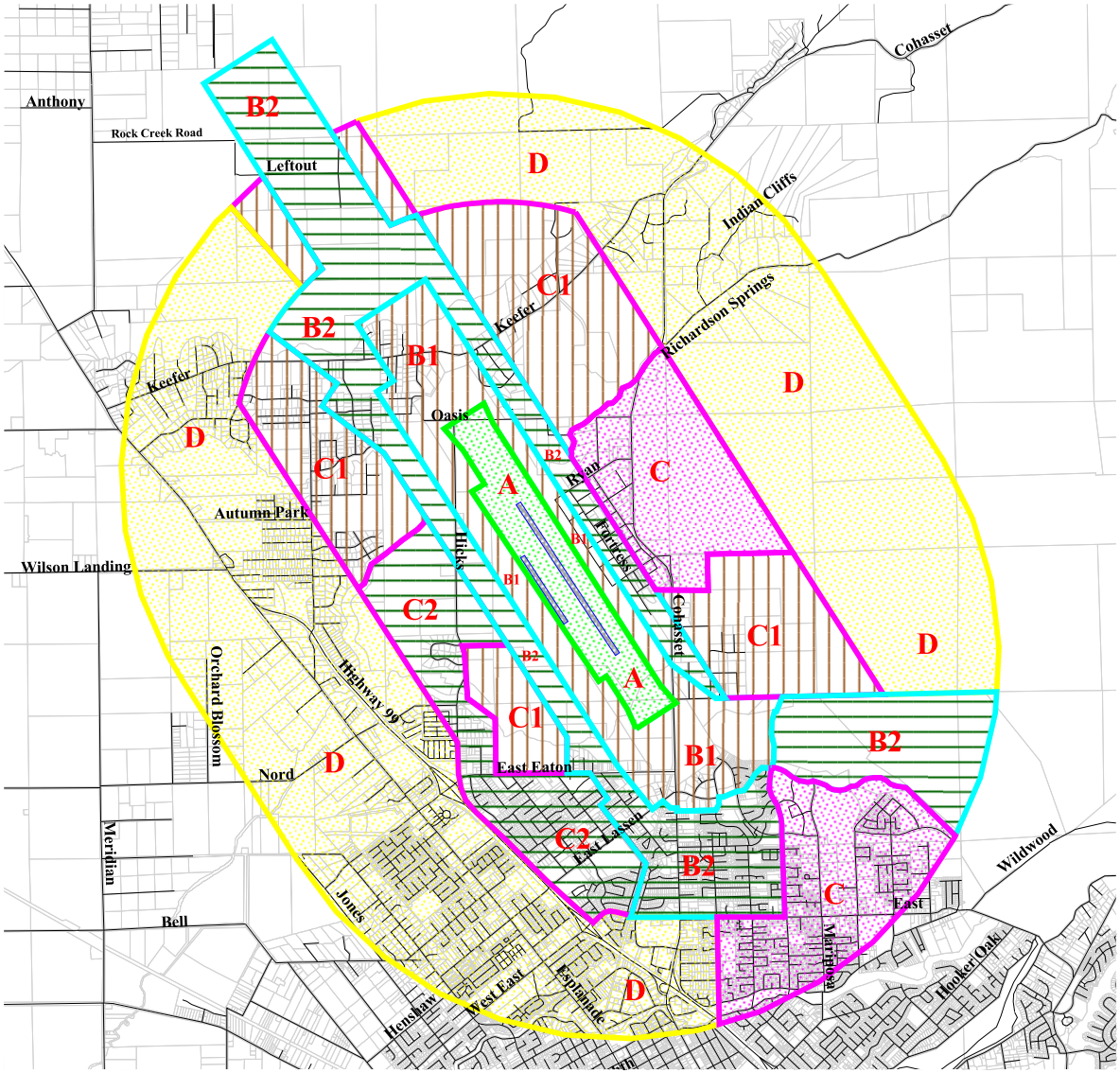

Planning Area

Legend

Compatibility Zones

- A Runway Protection Zone
- B1 Approach and Departure Zone and Sideline Zone
- B2 Extended Approach and Departure Zone
- C Traffic Pattern: Either C1 or C2
- C1 Traffic Pattern: 1 Dwelling Unit Per Minimum 5 Acres
- C2 Traffic Pattern: 4 Dwelling Units Or More Per Acre
- D Other Airport Environs

Airport Runways

Butte County Roads

Butte County Parcels

Adopted: December 20, 2000

LSA

FIGURE 4.10-3

0 4000 8000

FEET

SOURCE: Butte County Department of Developement Services Planning Division

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Chico Sewer Master Plan Update

Butte County Airport Land Use Compatibility Policy Map

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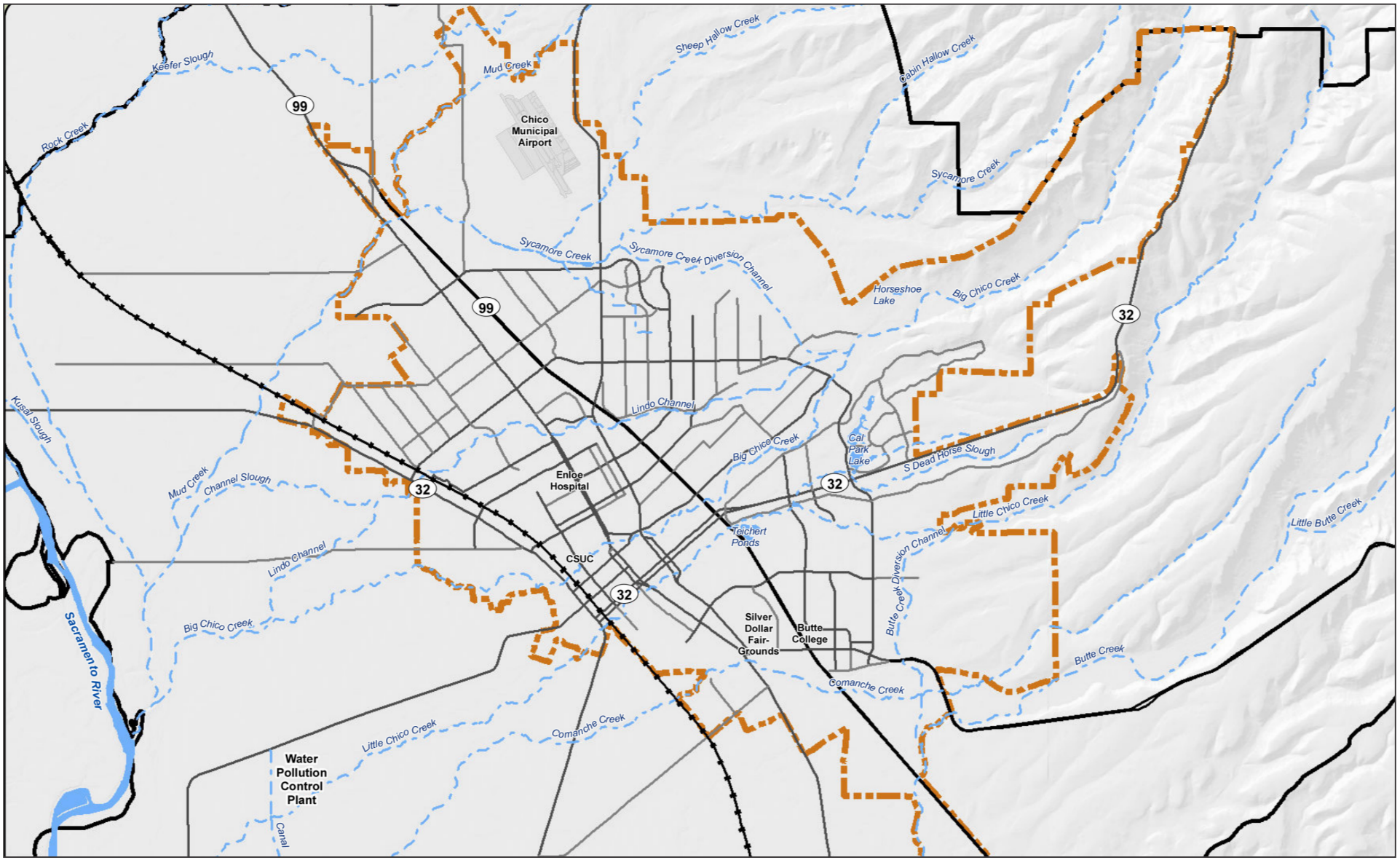

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FIGURE 4.11-1

N

0 1 2

MILES

LEGEND

- Creek and Water Resources
- Lakes
- City of Chico Sphere of Influence Boundary
- Chico Planning Area Boundary

SOURCE: Butte County Association of Governments (BCAG)
Habitat Conservation Plan/Natural Community Conservation Plan, 2009

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Chico Sewer Master Plan Update

Hydrologic Features

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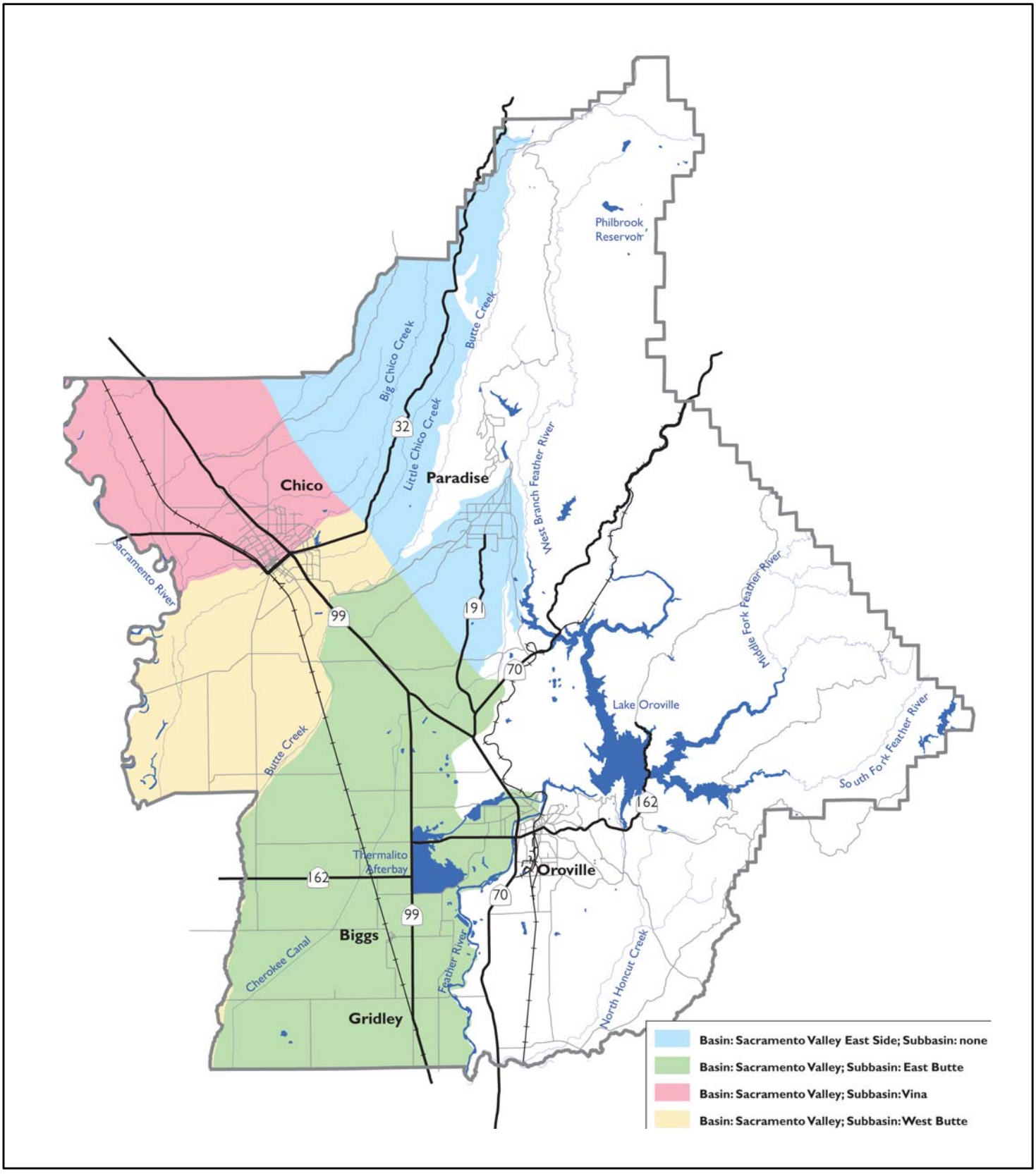

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FIGURE 4.11-2

N

0 5 10

MILES

SOURCE: Butte County Geographic Information Systems

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Chico Sewer Master Plan Update

Groundwater Bearing Zones

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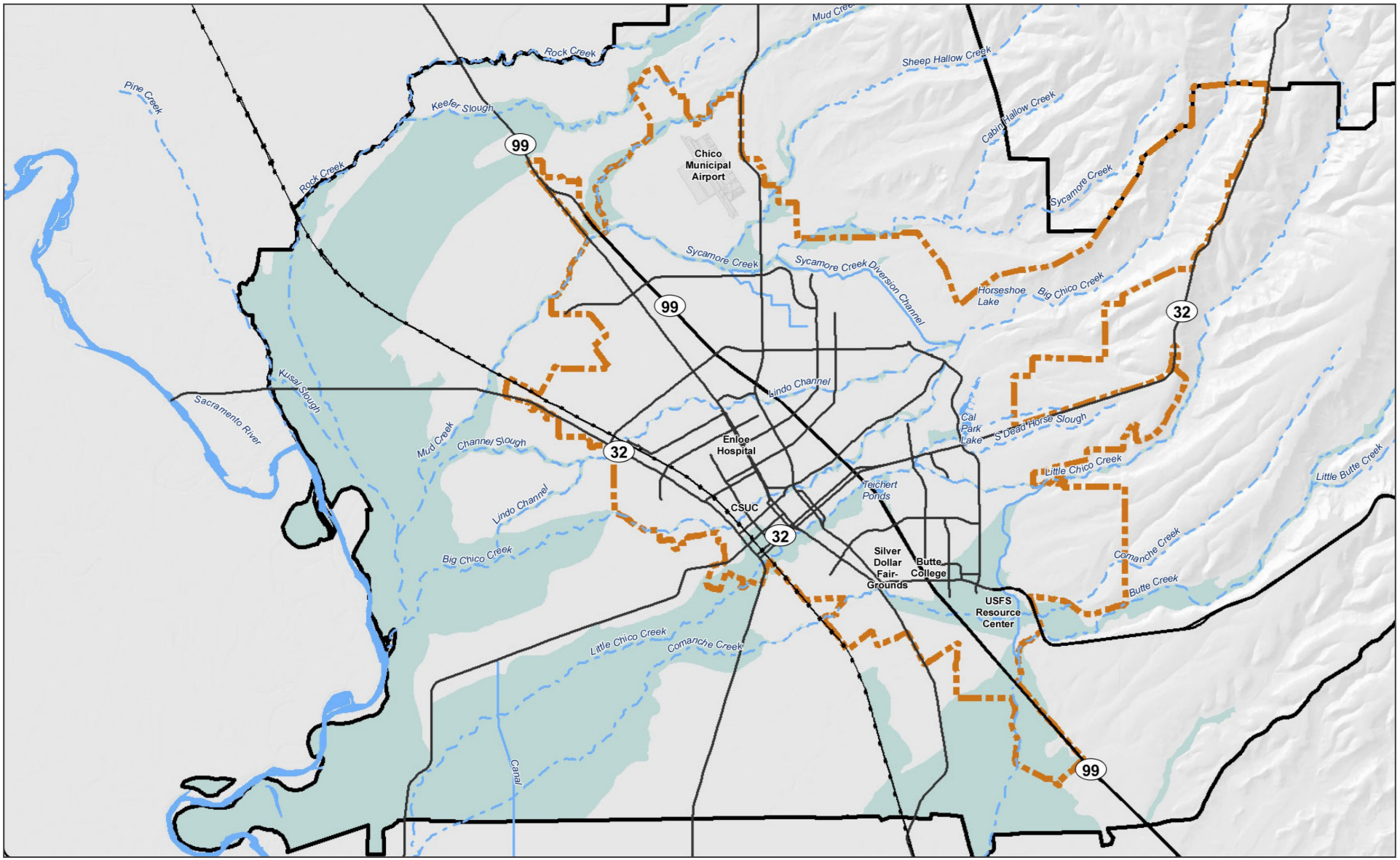

LSA

FIGURE 4.11-3

LEGEND

100 - Year Floodplain

City of Chico Sphere of Influence Boundary

Chico Planning Area Boundary

0 1 2

MILES

SOURCE: Federal Emergency Managment Agency (FEMA), 2009

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Chico Sewer Master Plan Update

FEMA Flood Zones

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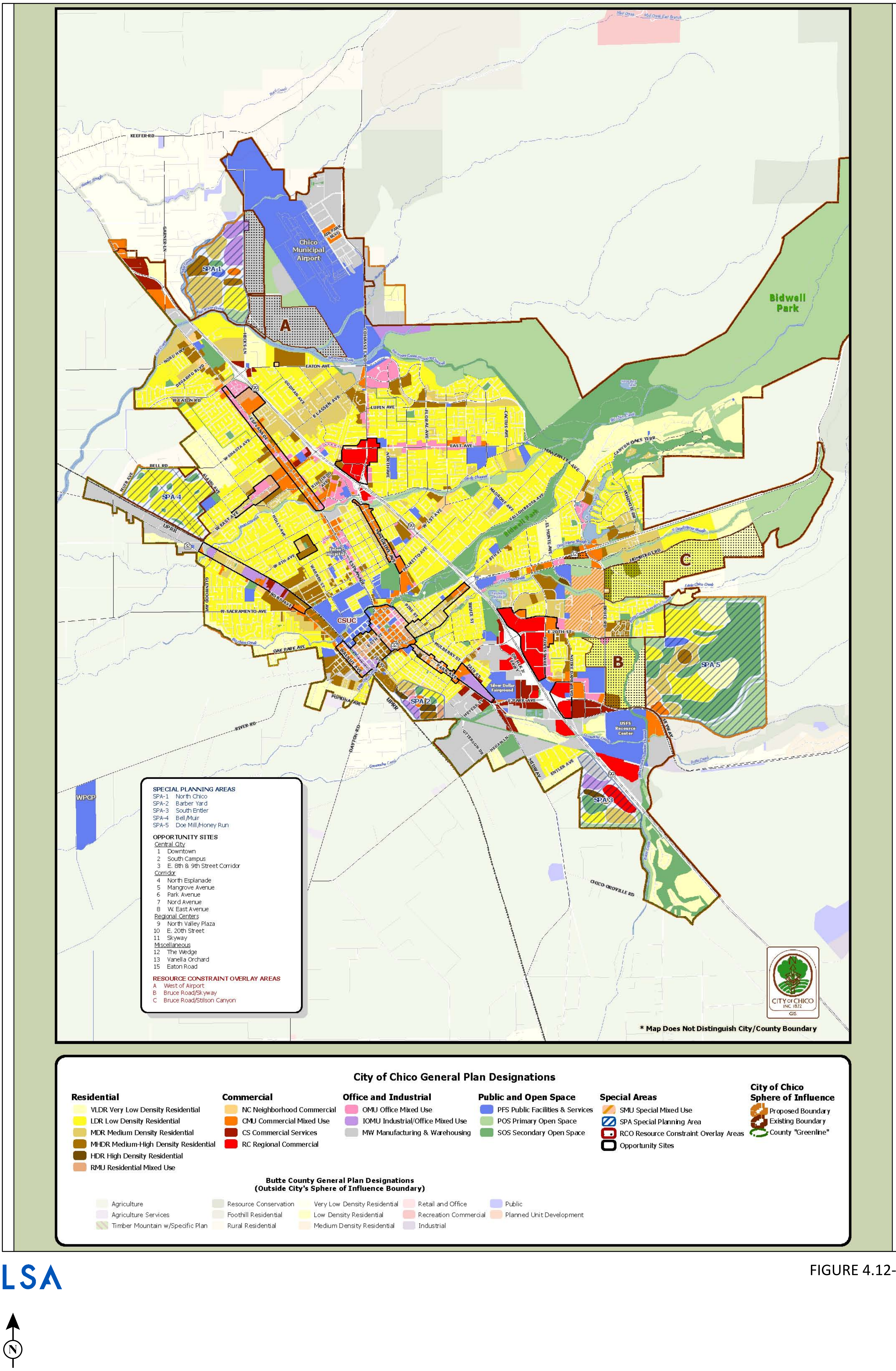

LSA

FIGURE 4.12-1

SOURCE: The City of Chico

Chico Sewer Master Plan Update

City of Chico General Plan Land Use Map

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City of Chico
Zoning/Pre-Zoning Map

Adopted by Ordinance No. 2428 November 1, 2011
Amending Ordinances

Ord.	Adopted	Ord.	Adopted	Ord.	Adopted	Ord.	Adopted	Ord.	Adopted
2432	9/18/2012								
2436	11/6/2012								
2441	6/4/2013								
2456	2/3/2015								
2457	4/7/2015								
2458	4/21/2015								
2476	1/9/2016								
2477	2/16/2016								
2484	6/21/2016								
2495	4/18/2017								
2517	10/2/2018								
2518	10/2/2018								
2533	8/6/2019								
2534	8/6/2019								
2568	9/7/2021								
2569	11/16/2021								

City/County Boundary
City of Chico Sphere of Influence Boundary

City of Chico Zoning Districts

Residential Districts
- RS-3 Suburban Residential 3 acre min.
- RS-2 Suburban Residential 2 acre min.
- RS-1 Suburban Residential 1 acre min.
- RS-20 Suburban Residential 20,000 sq ft min.
- R1-15 Low Density Residential 15,000 sq ft min.
- R1-10 Low Density Residential 10,000 sq ft min.
- R1 Low Density Residential
- R2 Medium Density Residential
- R3 Medium-High Density Residential
- R4 High Density Residential
- RMU Residential Mixed Use

Commercial/Office Districts
- OR Office Residential
- OC Office Commercial
- CN Neighborhood Commercial
- CC Community Commercial
- DS Downtown South
- DN Downtown North
- CS Services Commercial
- CR Regional Commercial

Manufacturing/Industrial Districts
- ML Light Manufacturing
- MG General Manufacturing
- IOMU Industrial Office Mixed-Use

Airport Districts
- A Airport
- AP Airport Public Facilities
- AC Airport Commercial
- AM Airport Manufacturing

Special Purpose Districts
- TND Traditional Mixed Use
- SPA Special Planning Area
- PQ Public/Quasi Public Facilities
- OS2 Secondary Open Space
- OS1 Primary Open Space

LSA

FIGURE 4.12-2

N

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MILES

SOURCE: The City of Chico (5/15/2023)

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Chico Sewer Master Plan Update
City of Chico Zoning Map

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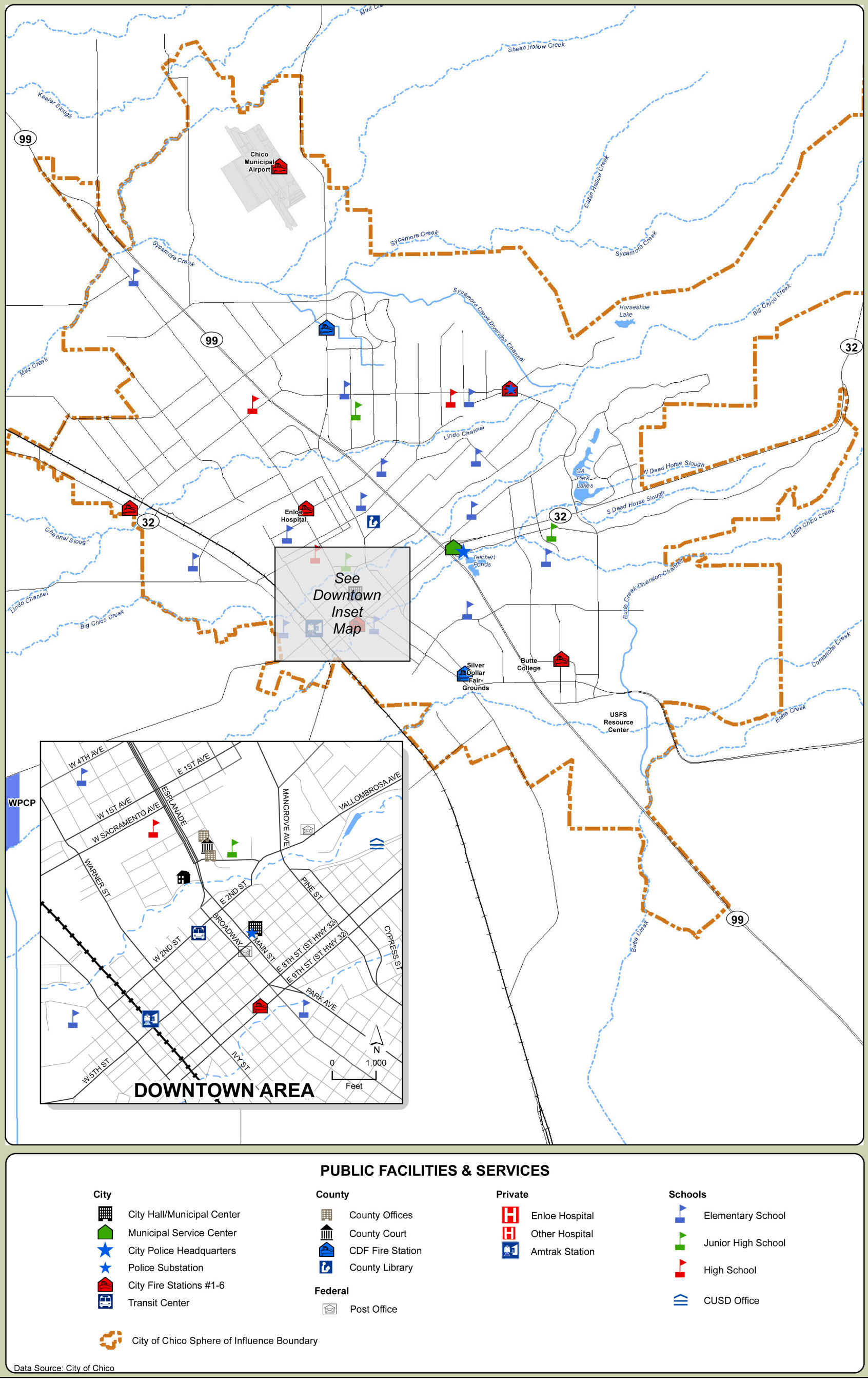

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FIGURE 4.16-1

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SOURCE: The City of Chico

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Chico Sewer Master Plan Update

Public Facilities and Services

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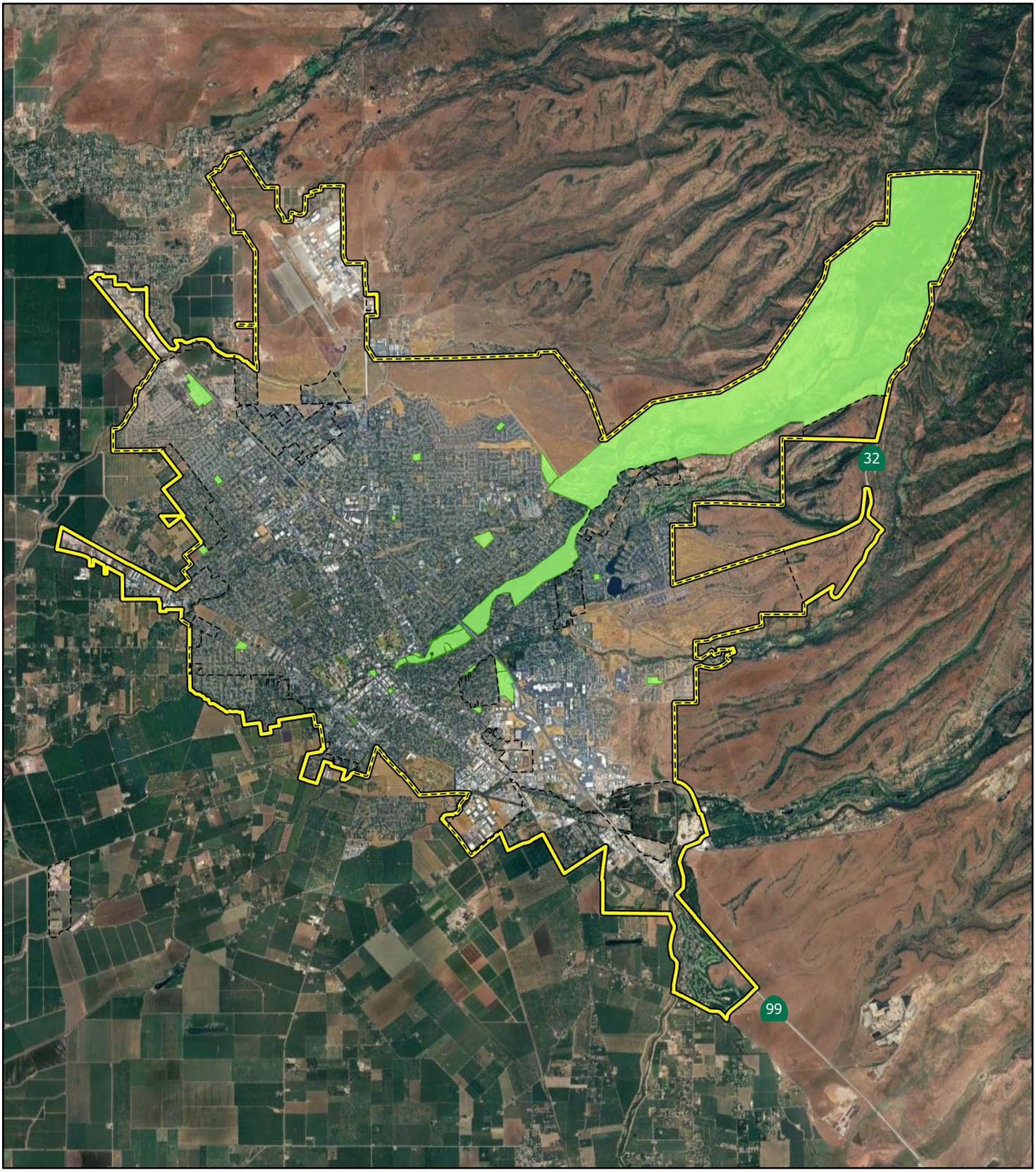

LSA

City of Chico Sphere of Influence

City Boundary

Parks

FIGURE 4.17-1

N

0 0.75 1.5

Miles

SOURCE: Google Maps (2023)

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Chico Sewer Master Plan Update

Parks

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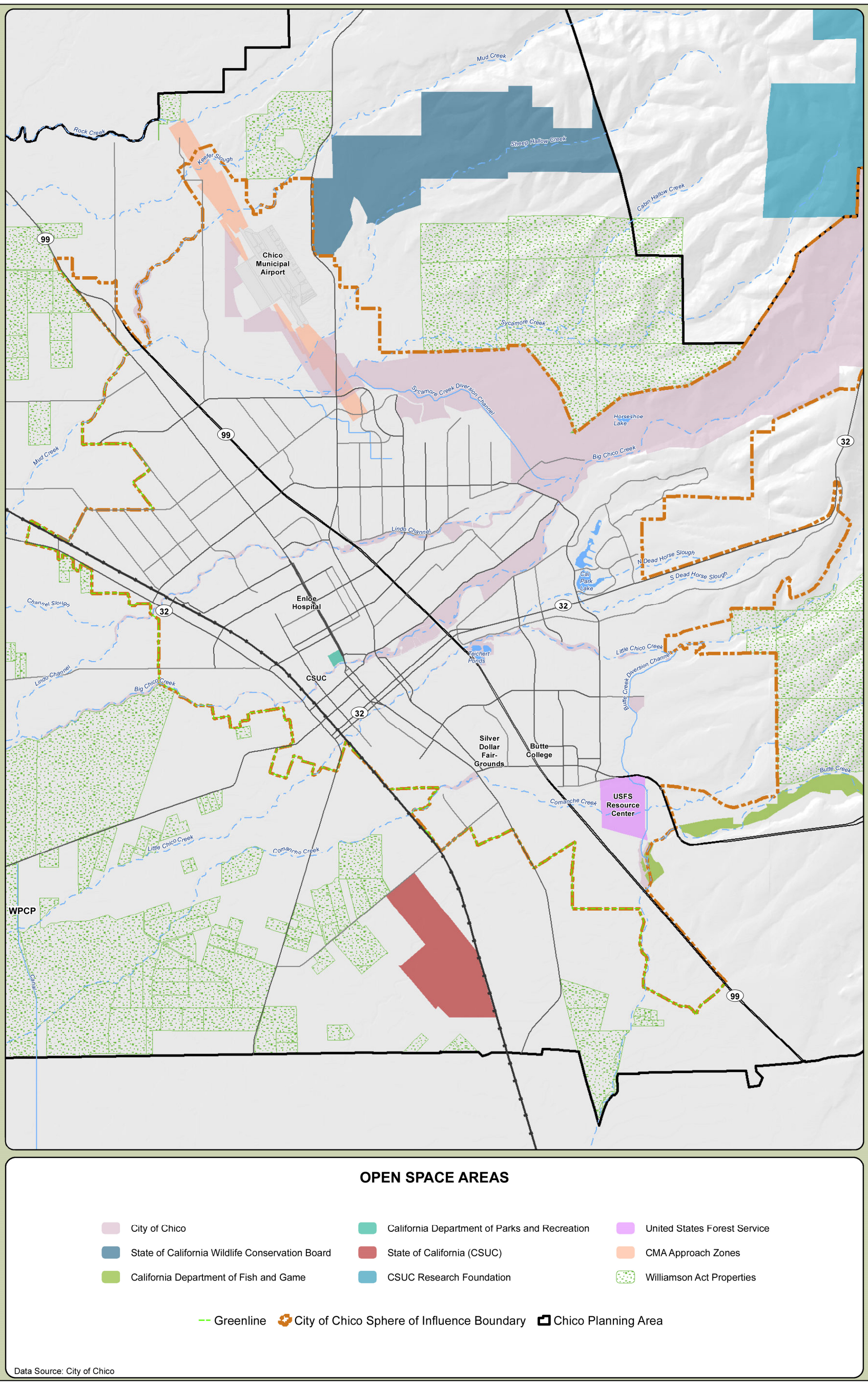

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FIGURE 4.17-2

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MILES

SOURCE: The City of Chico

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Chico Sewer Master Plan Update

Open Space Resources

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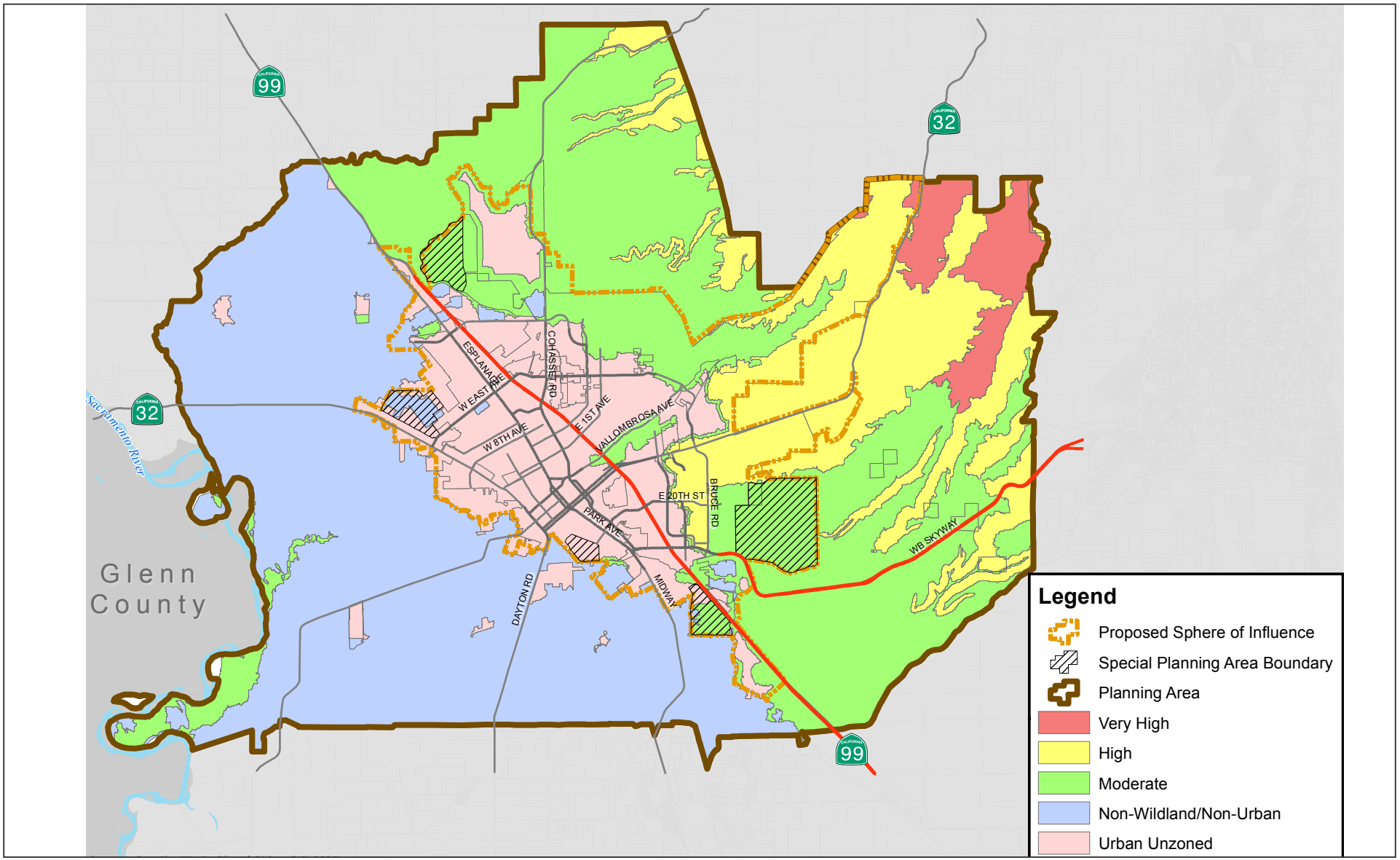

LSA

FIGURE 4.21-1

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MILES

SOURCE: CAL Fire FRAP, City of Chico GIS, 2007

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Chico Sewer Master Plan Update

Fire Severity Zones

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5.1 AGENCY REVIEWERS

5.1.1 City of Chico

The following individuals reviewed and provided input on the Draft IS/ND and technical reports:

- Tracy Bettencourt, Senior Planner

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5.2.1 LSA

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- Victoria Aispuro, Assistant Environmental Planner
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- Carie Wingert, Biological Resources Associate
- JT Stephens, Noise Principal
- Moe Abushanab, Mechanical Noise Engineer
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- Jennette Bosseler, Associate Technical Editor

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APPENDIX A

BIOLOGICAL WINDSHIELD SURVEY

- Orchard crops = nuts (English walnut, pecan) or stone fruit (peach, cherry). Not sure it matters what is what in terms of habitat. Nests visible in some trees; foraging habitat.
- Irrigated fields *appear* to be hay crops unless otherwise noted.
- Landscaping including mature trees present in urban areas (residential and commercial). Nesting birds surveys would be required.
- Delineation needed in areas that cross riverine habitat and in vernal pool/swale complexes.

1
- Orchard (English walnut) and residential
- Wildlife:
White-crowned sparrow

4
- Mostly residential, some commercial (storage units).
- Crosses Sycamore Creek at Cohasset Rd.

Also crosses ditch.
Morus alba
Phytolacca americana
Cichorium intybus
Quercus lobata
Rubus armeniacus
- Wildlife:
Red-shouldered hawk

5
- Vernal pool/vernal swale complex surrounded by grasslands. Drains into Sycamore Creek.
YST

8
9
10

10A
11B
12

13

14

- Ruderal field:

Salsola sp.

Hordeum sp.

Brassica nigra

Erigeron sp.

- Wildlife:

Northern flicker

Chickens

European starling

Pigeon

Northern mockingbird

16

- Mostly almond orchard, Irrigated hayfield, and residential. Crosses Sycamore Creek.

- Tamarisk(?) in Mud Creek; flows into Sycamore Creek

- Wildlife:

Mourning dove

17

- Ruderal grassland:

Annual grasses (unable to determine species)

Erodium sp.

Carduus pycnocephalus

- Scattered trees:

Pecan

Sequoia sempervirens

Quercus lobata

- Riparian area:

Quercus lobata

Populus fremontii

Toxicodendron diversilobum

Rubus armeniacus

Forbs (YST, Trifolium hirtum, Hordeum sp., Cyperus sp.)

-Wildlife:

Turkey vulture

American robin

Scrub jay

Sparrow

American crow

Turkey

18

- Planted pine forest (Chico Seed Orchard Administrative Site, Mendocino National Forest, USFS)
- Residential and commercial (urban)
- Annual grassland:

YST
Elymus caput-medusae
Avena sp.
Bromus sp.

19

20

- Railroad:

Salsola sp.
Sorghum halepensis
Malva sp.
Hordeum sp.
Silybum marianum
Croton setiger

Ponded areas at base of track berm
- Oak woodland / Abandoned buildings:
Quercus lobata
Eucalyptus globulus
Juglans sp.
Washingtonia sp.
Queen palm
Vicia sp.
Bromus sp.
Torilis arvensis
- Wildlife:
CA ground squirrel (burrows)
Scrub jay
Oak titmouse?
Hummingbird

21
22
23
24
- Residential and orchard.

25

- Development in progress from W East Ave to Henshaw Ave.
- Fallow field to north slated for development? Former orchard.

26

Inaccessible due to Bruce Road closure.

27

- Blue oak woodland (oak savannah?). Annual grassland understory.

Quercus chrysolepis
Pinus sabiniana

28

- Irrigated hayfield = oats?

Bromus sp.
Festuca perennis
Sorghum halepensis
Hordeum murinum
Erodium sp.

- Landscaping:
Palms (Washingtonia sp.)
Pyrus calleryana
Ligustrum sp.
Juglans sp.
Quercus lobata
- Wildlife:
Grey squirrel
Red-tailed hawk
Sapsucker

29

Developed - Google is accurate. Pull from street view. Wide variety of planted trees and other vegetation; nothing dominant.

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APPENDIX B

SPECIAL-STATUS SPECIES TABLE

Special-Status Species Known or with Potential to Occur in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Plants				
Astragalus tener var. *ferrisiae* Ferris' milk-vetch	US: — CA: — CRPR: 1B.1	Annual herb; blooms April-May; meadows and seeps (vernally mesic), valley and foothill grassland (subalkaline flats); elevation from 5 to 245 feet; Butte, Colusa, Glenn, Solano, Sutter, Yolo, Yuba counties.	5, 10, 18, 19, 26, 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects in foothill grassland areas have potential to support this species if suitable conditions are present.
Balsamorhiza macrolepis big-scale balsamroot	US: — CA: — CRPR: 1B.2	Perennial herb; blooms March-June; chaparral, cismontane woodland, valley and foothill grassland; elevation from 150 to 5,100 feet; Alameda, Amador, Butte, Colusa, El Dorado, Lake, Mariposa, Napa, Placer, Santa Clara, Shasta, Solano, Sonoma, Tehama, Tuolumne counties.	5, 10, 18, 19, 20, 26, 27	All projects foothill grassland and woodland areas have potential to support this species if suitable conditions are present.
Brasenia schreberi watershield	US: — CA: — CRPR: 2B.3	Perennial rhizomatous herb (aquatic); blooms June-September; marshes and swamps (freshwater); elevation from 0 to 7,220 feet; Butte, Calaveras, El Dorado, Fresno, Glenn, Lake, Lassen, Mendocino, Merced, Nevada, Plumas, Sacramento, Shasta, Sierra, Siskiyou, San Joaquin, Sonoma, Sutter, Tehama, Trinity, Tulare, Tuolumne counties.	4, 13, 16, 18, 19	Several projects cross drainages where wetlands may be present. Teichert Ponds wetlands are located near Project 10 but are not expected to be impacted as the project will be built within the existing paved right-of-way.
Calycadenia spicata spicate calycadenia	US: — CA: — CRPR: 1B.3	Annual herb; blooms May-September; cismontane woodland, valley and foothill grassland; elevation from 130 to 4,595 feet; Amador, Butte, Calaveras, El Dorado, Fresno, Kern, Nevada, Placer, Sacramento, San Joaquin, Stanislaus, Tulare, Tuolumne, Yuba counties.	5, 10, 18, 19, 20, 26, 27	All projects in foothill grassland and woodland areas have potential to support this species if suitable conditions are present.
Cardamine pachystigma var. *dissectifolia* dissected-leaved toothwort	US: — CA: — CRPR: 1B.2	Perennial rhizomatous herb; blooms February-May; chaparral, lower montane coniferous forest; elevation from 835 to 6890 feet; Butte counties.	None	None of the currently identified projects intersect these habitats, which are limited to the upper foothills and mountains east of Chico, including in the Bidwell Park area.

Special-Status Species Known or with Potential to Occur in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Carex comosa bristly sedge	US: — CA: — CRPR: 2B.1	Perennial rhizomatous herb; blooms May-September; coastal prairie, marshes and swamps (lake margins), valley and foothill grassland; elevation from 0 to 2050 feet; Contra Costa, Fresno, Lake, Mendocino, Sacramento, San Bernardino, Santa Cruz, San Francisco, Shasta, San Joaquin, San Mateo, Sonoma counties.	4, 13, 16, 18, 19, 26	Several projects cross drainages where wetlands may be present. Teichert Ponds wetlands are located near Project 10 but are not expected to be impacted as the project will be built within the existing paved right-of-way.
Castilleja rubicundula var. *rubicundula* pink creamsacs	US: — CA: — CRPR: 1B.2	Annual herb (hemiparasitic); blooms April-June; chaparral (openings), cismontane woodland, meadows and seeps, valley and foothill grassland; elevation from 65 to 2985 feet; Butte, Colusa, Glenn, Lake, Napa, Santa Clara, Shasta, Yolo counties.	5, 10, 18, 19, 26, 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects foothill grassland and woodland areas have potential to support this species if suitable conditions are present. Very little chaparral is present within the SOI; this habitat occurs in the upper foothills and lower mountain elevations, including at Bidwell Park.
Clarkia gracilis ssp. *albicaulis* white-stemmed clarkia	US: — CA: — CRPR: 1B.2	Annual herb; blooms (April) May-July; chaparral, cismontane woodland; elevation from 805 to 3560 feet; Butte, Tehama counties.	5, 10, 18, 19, 20, 26, 27	All foothill grassland and woodland areas have potential to support this species if suitable conditions are present.
Cryptantha crinita silky cryptantha	US: — CA: — CRPR: 1B.2	Annual herb; blooms April-May; cismontane woodland, lower montane coniferous forest, riparian forest, riparian woodland, valley and foothill grassland, streambeds; elevation from 200 to 3985 feet; Glenn, Shasta, Tehama counties.	4, 13, 16, 18, 19, 20, 26	Several projects cross drainages throughout the SOI where riparian woodland is present and/or occur in grassland and woodland habitat in the foothill areas of the SOI. All suitable habitats within the SOI have potential to support this species if suitable conditions are present.
Delphinium recurvatum recurved larkspur	US: — CA: — CRPR: 1B.2	Perennial herb; blooms March-June; chenopod scrub, cismontane woodland, valley and foothill grassland, alkaline; elevation from 10 to 2590 feet; Alameda, Butte, Contra Costa, Fresno, Kings, Kern, Madera, Merced, Monterey, Santa Barbara, San Benito, San Joaquin, San Luis Obispo, Solano, Sutter, Tulare, Yuba counties.	5, 10, 18, 19, 20, 26, 27	Chenopod scrub is absent within the SOI; however, foothill grassland and woodland areas in the foothills have potential to support this species if suitable conditions are present.

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Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Eriogonum umbellatum var. *ahartii* Ahart's buckwheat	US: — CA: — CRPR: 1B.2	Perennial herb; blooms June-September; chaparral, cismontane woodland; elevation from 1,310 to 6,560 feet; Butte, Plumas, Sierra, Yuba counties.	18, 27	Only two currently identified projects occur in woodland habitat and none occur in chaparral habitat. All projects within the foothill and mountain portions of the SOI have potential to occur in these habitats and could impact this species if suitable conditions are present.
Euphorbia hooveri Hoover's spurge	US: T CA: — CRPR: 1B.2	Annual herb; blooms (May-June) July-September (October); vernal pools; elevation from 80 to 820 feet; Butte, Glenn, Merced, Stanislaus, Tehama, Tulare counties.	5, 10, 18, 19, 26, 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All foothill grassland areas have potential to support this species if suitable conditions are present.
Fritillaria pluriflora adobe-lily	US: — CA: — CRPR: 1B.2	Perennial bulbiferous herb; blooms February-April; chaparral, cismontane woodland, valley and foothill grassland; elevation from 195 to 2,315 feet; Butte, Colusa, Glenn, Lake, Napa, Solano, Tehama, Yolo counties.	5, 10, 18, 19, 20, 26, 27	No projects are currently proposed in chaparral habitat, which is limited to the upper foothill and lower mountain elevations, such as at Bidwell Park. All projects in foothill grassland and woodland areas have potential to support this species if suitable conditions are present.
Hibiscus lasiocarpos var. *occidentalis* woolly rose-mallow	US: — CA: — CRPR: 1B.2	Perennial rhizomatous herb (emergent); blooms June-September; marshes and swamps (freshwater), often in riprap on sides of levees; elevation from 0 to 395 feet; Butte, Contra Costa, Colusa, Glenn, Sacramento, San Joaquin, Solano, Sutter, Yolo counties.	4, 13, 16, 18, 19	Several projects cross drainages where wetlands may be present. Teichert Ponds wetlands are located near Project 10 but are not expected to be impacted as the project will be built within the existing paved right-of-way.
Imperata brevifolia California satintail	US: — CA: — CRPR: 2B.1	Perennial rhizomatous herb; blooms September-May; chaparral, coastal scrub, meadows and seeps (often alkali), Mojavean desert scrub, riparian scrub; elevation from 0 to 3,985 feet; Butte, Fresno, Imperial, Inyo, Kern, Lake, Los Angeles, Orange, Riverside, San Bernardino, Tehama, Tulare, Ventura counties.	4, 13, 16, 18, 19 26, 27	Several projects cross drainages where wetlands may be present. Teichert Ponds wetlands are located near Project 10 but are not expected to be impacted as the project will be built within the existing paved right-of-way.

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Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Juncus leiospermus var. *leiospermus* Red Bluff dwarf rush	US: — CA: — CRPR: 1B.1	Annual herb; blooms March-June; chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools; elevation from 115 to 4,100 feet; Butte, Placer, Shasta, Tehama counties.	5, 10, 18, 19, 26, 27	No projects are currently proposed in chaparral habitat, which is limited to the upper foothill and lower mountain elevations, such as at Bidwell Park. Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects in foothill grassland areas have potential to support this species if suitable conditions are present.
Legenere limosa legenere	US: — CA: — CRPR: 1B.1	Annual herb; blooms April-June; vernal pools; elevation from 5 to 2,885 feet; Alameda, Lake, Monterey, Napa, Placer, Sacramento, Santa Clara, Shasta, San Joaquin, San Mateo, Solano, Sonoma, Stanislaus, Tehama, Yuba counties.	5, 10, 18, 19, 26, 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects in foothill grassland areas have potential to support this species if suitable conditions are present.
Limnanthes floccosa ssp. *californica* Butte County meadowfoam	US: E CA: E CRPR: 1B.1	Annual herb; blooms March-May; valley and foothill grassland (mesic), vernal pools; elevation from 150 to 3,050 feet; Butte counties.	5, 10 (EONDX 9240), 18 & 19 & 26 (EONDX 19817), 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects in foothill grassland areas have potential to support this species if suitable conditions are present.
Monardella venosa veiny monardella	US: — CA: — CRPR: 1B.1	Annual herb; blooms May-July; cismontane woodland, valley and foothill grassland; elevation from 195 to 1,345 feet; Butte, Sutter, Tuolumne, Yuba counties.	5, 10, 18, 19, 20, 26, 27	All projects in foothill grassland and woodland areas have potential to support this species if suitable conditions are present.
Orcuttia pilosa Hairy Orcutt grass	US: E CA: E CRPR: 1B.1	Annual herb; blooms May-September; vernal pools; elevation from 150 to 655 feet; Glenn, Madera, Merced, Stanislaus, Tehama counties.	10, 18, 19, 26, 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects foothill grassland and woodland areas have potential to support this species if suitable conditions are present.

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Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Orcuttia tenuis Slender Orcutt grass	US: T CA: E CRPR: 1B.1	Annual herb; blooms May-September (October); vernal pools; elevation from 115 to 5,775 feet; Butte, Lake, Lassen, Modoc, Plumas, Sacramento, Shasta, Siskiyou, Tehama counties.	5, 10, 18, 19, 26, 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects foothill grassland and woodland areas have potential to support this species if suitable conditions are present.
Paronychia ahartii Ahart's paronychia	US: — CA: — CRPR: 1B.1	Annual herb; blooms February-June; cismontane woodland, valley and foothill grassland, vernal pools; elevation from 100 to 1,675 feet; Butte, Shasta, Tehama counties.	5, 10, 18, 19, 26, 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects foothill grassland and woodland areas have potential to support this species if suitable conditions are present.
Rhynchospora californica California beaked-rush	US: — CA: — CRPR: 1B.1	Perennial rhizomatous herb; blooms May-July; bogs and fens, lower montane coniferous forest, marshes and swamps (freshwater), meadows and seeps (seeps); elevation from 150 to 3,315 feet; Butte, Marin, Napa, Sonoma counties.	4, 13, 16, 18, 19	Several projects cross drainages where wetlands may be present. Teichert Ponds wetlands are located near Project 10 but are not expected to be impacted as the project will be built within the existing paved right-of-way. Coniferous forest may be present in the highest elevations within the SOI and are unlikely to be impacted.
Rhynchospora capitellata brownish beaked-rush	US: — CA: — CRPR: 2B.2	Perennial herb; blooms July-August; lower montane coniferous forest, marshes and swamps, meadows and seeps, upper montane coniferous forest; elevation from 150 to 6,560 feet; Butte, El Dorado, Mariposa, Nevada, Plumas, Sonoma, Tehama, Trinity, Tuolumne, Yuba counties.	4, 13, 16, 18, 19	Several projects cross drainages where wetlands may be present. Teichert Ponds wetlands are located near Project 10 but are not expected to be impacted as the project will be built within the existing paved right-of-way. Coniferous forest may be present in the highest elevations within the SOI and are unlikely to be impacted.
Sidalcea robusta Butte County checkerbloom	US: — CA: — CRPR: 1B.2	Perennial rhizomatous herb; blooms April-June; chaparral, cismontane woodland; elevation from 295 to 5,250 feet; Butte counties.	18, 27	Only two currently identified projects occur in woodland habitat and none occur in chaparral habitat. All projects within the foothill and mountain portions of the SOI have potential to occur in these habitats and could impact this species if suitable conditions are present.

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Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Stuckenia filiformis ssp. *alpina* northern slender pondweed	US: — CA: — CRPR: 2B.2	Perennial rhizomatous herb (aquatic); blooms May-July; marshes and swamps (shallow freshwater); elevation from 985 to 7,055 feet; Alameda, Butte, Contra Costa, El Dorado, Lassen, Merced, Mono, Modoc, Mariposa, Placer, Santa Clara, Shasta, Sierra, San Mateo, Solano, Sonoma counties.	4, 5, 13, 16, 18, 19	Several projects cross drainages throughout the SOI where riparian woodland is present and/or occur in grassland and woodland habitat in the foothill areas of the SOI. All suitable habitats within the SOI have potential to support this species if suitable conditions are present.
Trifolium jokerstii Butte County golden clover	US: — CA: — CRPR: 1B.2	Annual herb; blooms March-May; valley and foothill grassland (mesic), vernal pools; elevation from 165 to 1,575 feet; Butte counties.	5, 10, 18, 19, 26, 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All foothill grassland areas have potential to support vernal pools species.
Tuctoria greenei Greene's tuctoria	US: E CA: R CRPR: 1B.1	Annual herb; blooms May-July (September); vernal pools; elevation from 100 to 3,510 feet; Butte, Fresno, Glenn, Madera, Merced, Modoc, Shasta, San Joaquin, Stanislaus, Tehama, Tulare counties.	5, 10, 18, 19, 26, 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All foothill grassland areas have potential to support vernal pools species.
Wolffia brasiliensis Brazilian watermeal	US: — CA: — CRPR: 2B.3	Perennial herb (aquatic); blooms April-December; marshes and swamps (shallow freshwater); elevation from 65 to 330 feet; Butte, Glenn, Sutter, Yuba counties.	4, 5, 13, 16, 18, 19	Several projects cross drainages throughout the SOI where riparian woodland is present and/or occur in grassland and woodland habitat in the foothill areas of the SOI. All suitable habitats within the SOI have potential to support this species if suitable conditions are present.
Fish				
Acipenser medirostris pop. 1 green sturgeon - southern DPS	US: T CA: SSC	Spawns in the Sacramento, Feather, and Yuba rivers. Presence in upper Stanislaus and San Joaquin rivers may indicate spawning. Nonspawning adults occupy marine/estuarine waters. Delta Estuary is important for rearing juveniles. Spawning occurs primarily in cool (50–60°F) sections of mainstem rivers in deep pools (25-26 feet) with substrate containing small to medium sized sand, gravel, cobble, or boulders.	None	The species range does not extend into the SOI.

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Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Acipenser transmontanus white sturgeon	US: — CA: C, SSC	Lives in estuaries of large rivers where adults concentrate in deep areas with soft bottoms, mostly in brackish portions of estuaries; moves into freshwater to spawn; found in the Klamath/North coast flowing waters and Sacramento/San Joaquin flowing waters.	None	The species range does not extend into the SOI.
Cottus gulosus riffle sculpin	US: — CA: SSC	Found in headwater streams with rocky or gravelly substrates at water temperatures below 77°F, mostly in permanent streams with near saturated dissolved oxygen; favors areas with cover.	None	The species range does not extend into the SOI.
Hesperoleucus symmetricus symmetricus central California roach	US: — CA: SSC	Found in Sacramento/Joaquin flowing waters; generally in small streams of the Sierra Nevada foothills below 3,280 feet flowing into the Central Valley; particularly well adapted to life in intermittent watercourses and tolerant of wide temperature ranges and dissolved oxygen levels; dense populations are frequently observed in isolated pools when other fish species absent; with other fish, found in shallow margins, pool edges, or dense cover.	4, 13, 16, 18,	Known to occur in tributaries to the Sacramento River, which may include several drainages in the SOI.
Hysterocarpus traskii traskii Sacramento-San Joaquin tule perch	US: — CA: —	Most commonly found in low-elevation lakes, streams, and estuaries in well oxygenated water at temperatures below 72°F; can tolerate high salinity; prefers deep pools with aquatic and overhanging vegetation.	4, 13, 16, 18,	Known to occur in several Central Vally drainages, which may include several drainages in the SOI.
Mylopharodon conocephalus hardhead	US: — CA: SSC	Found in Klamath/North Coast flowing waters and Sacramento/San Joaquin flowing waters; require clear, deep pools with sand/gravel/boulder bottoms and slow water velocity.	4, 13, 16, 18,	In the Sacramento River basin it is found mostly in larger tributaries, which may include Big Chico Creek, Little Chico Creek, and Comanche Creek.
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	US: T CA: SSC	Populations in the Sacramento and San Joaquin rivers and their tributaries. Central Valley steelhead enter fresh water from August through April. Steelhead adults typically spawn from December through April, with peaks from January through March.	13	Multiple streams within the SOI identified as Critical Habitat including Mud Creek, Lindo Channel, Big Chico Creek, Little Chico Creek, and Butte Creek.

Special-Status Species Known or with Potential to Occur in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Oncorhynchus tshawytscha pop. 11 chinook salmon - Central Valley spring-run ESU	US: T CA: T	Adult numbers depend on pool depth and volume, amount of cover, proximity to gravel, and temperatures (water temps >80°F are lethal to adults).	13	Known to occur in Mud Creek, Lindo Channel, Big Chico Creek, and Butte Creek.
Invertebrates				
Bombus crotchii Crotch's bumble bee	US: — CA: C	Nearly endemic to California; occurs in grassland and shrublands in southern and central California; flight period for queens is from late February to late October; flight period for workers and males is from Late March through September; nests underground; likely overwinters in soft soil or under leaf litter; generalist forager; food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	5, 17, 18, 19, 20, 26, 27	Suitable habitat likely limited to undeveloped foothills and lower mountain elevations; possible in scattered undeveloped parcels on valley floor portion of SOI.
Branchinecta conservatio conservancy fairy shrimp	US: E CA: —	California endemic found in large, turbid vernal pools and wetlands in valley and foot grassland in the Central Valley. Pools usually found in swales formed by old, braided alluvium and usually last until June; not found where centrarchids are abundant.	5, 10, 18, 19, 26	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects in foothill grassland areas have potential to support this species if suitable conditions are present.
Branchinecta lynchi vernal pool fairy shrimp	US: T CA: —	Occur in a variety of vernal pool habitats that range from small, clear pools to large, turbid and alkaline pools; more common in pools less than 0.05 acre, typically as part of larger vernal pool complexes; adults active from early December to early May; pools must hold water for at least 18 days, the minimum to complete the life cycle if temperatures are optimal; eggs are laid in spring and persist through the dry season as cysts; current California distribution includes the Central Valley and coast ranges; threatened by habitat loss, degradation, and fragmentation, and interference with vernal pool hydrology.	5, 10, 18, 19, 26	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects in foothill grassland areas have potential to support this species if suitable conditions are present.

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Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Danaus Plexippus monarch butterfly	US: C CA: —	Migrant; lays eggs on milkweed (primarily *Asclepias* spp.); overwinters along the coast in dense stands of eucalyptus, Monterey pine, and Monterey cypress that provide indirect sunlight, moisture for hydration, protection from winds, and above-freezing temperatures.	5, 10, 18, 19, 20, 26, 27	If present, likely limited to foothill grasslands and sparse woodlands where milkweed may be present. No suitable wintering habitat present.
Desmocerus californicus dimorphus valley elderberry longhorn beetle	US: T CA: —	Requires elderberry shrubs for reproduction and survival, with stems greater than 1 inch; occurs only in the Central Valley north of the San Joaquin River to Shasta County; occurs below 500 feet elevation; eggs laid on elderberry shrubs; larvae burrow into stems for food and metamorphosis; adults emerge from the stem and spend the remainder of their lives on the same shrub or on the ground underneath.	13, 18	Potential for occurrence in riparian corridors if elderberry shrubs are present. On unprocessed recorded occurrence in the CNDDB dated 2022 of exit holes on an elderberry shrub in northeast Chico.
Lepidurus packardi vernal pool tadpole shrimp	US: E CA: —	Vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass bottomed swales of unplowed grasslands; some pools are mud-bottomed.	5, 10 (EONDX 30635), 18, 19, 26	Numerous recorded occurrences from 2024 in vernal pool complexes in the eastern portion of the SOI. All projects in foothill grassland areas have potential to support this species if suitable conditions are present.
Amphibians				
Rana boylii pop. 1 foothill yellow-legged frog - north coast DPS	US: — CA: SSC	Found in aquatic habitats with flowing water and partially shaded by riparian habitat. Streams are shallow and have riffles from rocky substrate. Lays eggs on cobble-size rock. Water must be present for at least 15 weeks for metamorphosis. Rarely found away from permanent water; further distance from water recorded is 165 feet. Northern Coast Ranges north of San Francisco Bay Estuary, Klamath Mountains, and Cascade Range including watershed subbasins (HU 8) Lower Pit, Battle Creek, Thomes Creek, and Big Chico Creek in Lassen, Shasta, Tehama, and Butte Counties.	None	Limited to tributaries in the foothill and lower mountain elevations in the SOI, such as Little Chico Creek and Butte Creek.

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Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Rana boylii pop. 2 foothill yellow-legged frog - Feather River DPS	US: T CA: T	Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis. Feather River watershed above Oroville. Specifically, watershed subbasins (HU 8) North Fork Feather, East Branch North Fork Feather, Middle Fork Feather, Butte Creek, and Honcut Headwaters - Lower Feather in Lassen, Plumas, Butte, and Sierra counties.	None	Limited to tributaries in the foothill and lower mountain elevations in the SOI, such as Lindo Channel and Big Chico Creek.
Rana draytonii California red-legged frog	US: T CA: SSC	Lowland and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation and associated upland habitat.	4, 13, 16, 18,	Potential to occur in riparian habitat along Sycamore Creek, Lindo Channel, Big Chico Creek, Little Chico Creek, Comanche Creek, Butte Creek and other tributaries with suitable habitat. May extend into valley floor portions of SOI.
Spea hammondii western spadefoot	US: P CA: SSC	Species relies on vernal pools for breeding where predators cannot become established; open areas with sand or gravelly soils in a variety of habitats: grasslands, coastal scrub, woodlands, chaparral, sandy washes, lowland river floodplains, alkali flats, foothills, and mountains; endemic to California and northern Baja California; distribution is from Redding south throughout the Central Valley and foothills, throughout the South Coast Ranges into coastal southern California to the Transverse and Peninsular mountains; elevation is from sea level to 4,500 feet.	5, 10, 18, 19, 26, 27	Vernal pools have historically occurred throughout the foothill grasslands along the east side of the SOI. All projects in foothill grassland areas have potential to support this species if suitable conditions are present.
Reptiles				
Actinemys marmorata northwestern pond turtle	US: P CA: SSC	Highly aquatic and diurnally active; found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with vegetation and rocky/muddy bottoms; wide variety of habitats; needs basking areas near water (logs, rocks, vegetation mats, banks); may enter brackish water and even seawater; digs nest on land near water; range is from north of the San Francisco Bay area south, including the Central Valley.	4, 13, 16, 18, 19	Several projects cross drainages that may be suitable for pond turtles. Teichert Ponds wetlands are located near Project 10 but are not expected to be impacted as the project will be built within the existing paved right-of-way.

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Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Phrynosoma blainvillii coast horned lizard	US: — CA: SSC	Prefers sandy/loose soils in grassland, forests, woodlands, and open chaparral; often found along sand washes and dirt roads with scattered shrubs for refuge; specialized in consuming ants; distribution includes coastal California from Baja California north to the Bay Area, southeastern desert regions, southern Central Valley flats and foothills and surrounding mounts on drier, warmer slopes; threatened by habitat loss/fragmentation and spread of invasive ant species displacing native prey; elevation from sea level to 8,000 feet.	4, 5, 18, 19, 26, 27	All projects in foothill grassland and woodland areas have potential to support this species if suitable conditions are present.
Thamnophis gigas giant gartersnake	US: T CA: T	Highly aquatic snake found in marshes and sloughs, drainage canals, and irrigation ditches; prefers vegetation close to water for basking; does not venture more than 200 feet from aquatic habitat; elevation from sea level to 400 feet; endemic to California; currently ranges from Glenn County to southern edge of San Francisco Bay Delta, and from Merced County to northern Fresno County.	13, 16, 18	Potential for occurrence in streams on the valley floor portion of the SOI if suitable conditions are present, such as Lindo Channel, Big Chico Creek, Comanche Creek, and Butte Creek.
Birds				
Agelaius tricolor tricolored blackbird	US: T CA: SSC	Colonial breeder that prefers freshwater, emergent wetlands with tall, dense cattails or tules, but also thickets of willow, blackberry, wild rose, and tall herbs; breeding colonies are minimum 50 pairs; forages in pastures, grain fields, and similar habitats near breeding areas.	10	Limited nesting opportunities within the SOI. Teichert Ponds wetlands are located near Project 10 but are not expected to be impacted as the project will be built within the existing paved right-of-way.
Antigone canadensis tabida greater sandhill crane	US: T CA: FP	Found in marshes & swamps, meadows & seeps, wetlands; prefers grain fields within 4 miles of a shallow body of water used as a communal roost site; irrigated pasture used as loafing sites. Nests in wetland habitats in northeastern California; winters in the Central Valley.	None	Grain fields that could support cranes are absent from the SOI and the limited number of wetlands are smaller than would be considered suitable for this species.
Aquila chrysaetos golden eagle	US: — CA: FP	The golden eagle is an uncommon resident of mountainous and valley-foothill areas. Nesting occurs on cliff ledges and overhangs or in large trees. Foraging typically occurs in open terrain where small rodent prey is seen while soaring high above ground.	18, 27	Nesting limited to oak woodland in the eastern portion of the SOI. Likely to nest further from developed areas. Grassland matrix in eastern portion of SOI provides suitable foraging habitat.

Special-Status Species Known or with Potential to Occur in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Asio otus long-eared owl	US: — CA: SSC	Riparian or other thickets with small, densely canopied trees typically near meadows and grasslands; hunts by low-gliding flight; require adjacent open land, productive of mice; uses nests constructed by other species including crows, hawks, magpies, herons, and squirrels.	18	Has been documented in urban environments but is considered a winter visitor in the Central Valley. Would be limited to dense riparian zones in the eastern portion of the SOI.
Athene cunicularia burrowing owl	US: — CA: C, SSC	Occupies a variety of open, semi-arid to arid habitats throughout central and southern California, including desert regions; prefers open habitats with few shrubs or trees; most active around sunrise and sunset; utilizes burrows constructed by mammals year-round for shelter and nesting; well documented in urban areas where patches of undeveloped areas are present (e.g., canals, airports, drainage basins) and in areas of dense agricultural development, particularly where canals provide burrow habitat; forages primarily for rodents and insects within several miles of its burrow, usually in open, grassy habitats if available; has been observed hunting bats and insects around parking lot lights; threats include development resulting in habitat loss/fragmentation.	4, 5, 10, 17, 18, 19, 20, 26, 27	Several records in eastern portion of SOI associated with Annual Grassland habitat. Well documented in urban habitats.
Buteo swainsoni Swainson's hawk	US: — CA: T	Resident and migrant throughout the Central Valley, Klamath Basin, Northeastern Plateau, Mojave Desert, Antelope Valley, and elsewhere; breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannahs; usually nests in scattered trees surrounded by foraging habitat; forages primarily for small mammals in grasslands and open desert scrublands or suitable grain fields or livestock pastures; occasionally eats insects, amphibians, reptiles, and birds; usually found near water.	5, 10, 17, 18, 19, 24, 25	No records within SOI but documented in Central Valley floor area to north, south, and west of SOI.
Charadrius montanus mountain plover	US: — CA: SSC	Does not breed in California; winter resident from September-March; occurs in grasslands, open sagebrush, and plowed fields throughout central and southern California, except desert regions; feeds on large insects, especially grasshoppers.	5, 27	Could occur in Annual Grassland in eastern portion of SOI during the winter.

Special-Status Species Known or with Potential to Occur in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Circus hydsonius *Northern harrier*	US: — CA: SSC	Meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands. Nests on ground, usually at marsh edge. Mostly nests in emergent wetland or along rivers or lakes, but may nest in grasslands, grain fields, or on sagebrush flats several miles from water. Breeds April to September.	18, 19, 26, 27	Not documented in literature research but was determined to have potential in the 2030 General Plan area. Annual Grassland in eastern portion of SOI may provide suitable nesting and foraging habitat. Doesn't tolerate disturbance well.
Coccyzus americanus occidentalis western yellow-billed cuckoo	US: T CA: E	Found in scattered occurrences of valley foothill and desert riparian habitats in the Sacramento and Owens valleys, the southern San Joaquin Valley, and southern California; migrant; winters in South America and breeds in California from June to September; prefers dense riparian thickets, especially willows; will also use adjacent orchards in Sacramento Valley; breeds in river bottoms and other mesic habitats where humidity is high; forages for insects but occasionally eats frogs, lizards, and sometimes fruit.	13, 18	Very low potential to occur in SOI due to urban development adjacent to most riparian corridors. Well documented along the Sacramento River to the west, but no records within the SOI.
Elanus leucurus white-tailed kite	US: — CA: FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching. Places nest near top of dense oak, willow, or other tree near open foraging area. Substantial groves of dense, broad-leafed deciduous trees used for nesting and roosting. Forages in undisturbed, open grasslands, meadows, farmlands, and emergent wetlands.	10, 18, 26, 27	Suitable habitat present in the grassland and woodlands in the eastern portion of the SOI. Several unprocessed CNDDB records from 2024 near the eastern extent of proposed project 10 and near project 26.
Gymnogyps californianus California condor	US: E CA: E, FP	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude; prefers deep canyons containing clefts in the rocky walls provide nesting sites; roosts on cliffs and large trees/snags; nests above 2,000 feet but may roost down to sea-level; strict scavenger; forages up to 100 miles from roost/nest.	None	SOI not in species range. SOI is below known nesting elevations. Very unlikely to forage in SOI.

Special-Status Species Known or with Potential to Occur in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Haliaeetus leucocephalus bald eagle	US: D CA: E, FP	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water. Nests in large, old-growth, or dominant live trees with open branches, especially ponderosa pine. Roosts communally in winter. Piscivorous and scavenger. Requires large bodies of water.	None	Documented at Bidwell Park Pond. Potential for occurrence highly-limited due to foraging needs.
Icteria virens yellow-breasted chat	US: — CA: SSC	Summer resident of riparian willow thickets and other brushy tangles (e.g., blackberry, wild grape) near water on coast and Sierra Nevada foothills up to 4,800 feet; forages and nests in low, dense riparian habitat within 10 feet of ground.	18	One unprocessed CNDDB record from 2023 in Bidwell Park. Limited potential to occur in riparian habitats in foothill portions of the SOI but may be excluded from urban areas.
Lanius ludovicianus loggerhead shrike	US: — CA: SSC	Nests in shrubs in coastal sage scrub and chaparral habitats or in trees that overlook grasslands; preys over semi-open habitats and feeds primarily on large insects and often skewers prey on a barb or thorn to cache for later feeding.	18, 27	Suitable habitat present in the grassland and woodlands in the eastern portion of the SOI. Likely to occur away from developed areas.
Laterallus jamaicensis coturniculus California black rail	US: — CA: T, FP	Typically inhabit and nest in saline, brackish, and fresh emergent wetlands; major distribution in California is within the San Francisco Bay Area, ranging north to Santa Rosa and south to San Jose; scattered occurrences elsewhere; requires dense emergent vegetation for cover and nesting;	None	Limited occurrences documented in foothills, including one occurrence of a single individual at Bidwell Park in 2008 (EONDX 77039).
Progne subis purple martin	US: — CA: SSC	The purple martin is a rare forager for insects over the open streambed and agricultural fields in the project area. This species tends to nest in cavities of large trees in oak and riparian woodlands, and low elevation coniferous forests. Competition with European starlings for nesting cavities is one of the primary reasons for this species decline (USDA 1999).	18, 19	Potential habitat in woodlands and riparian areas in eastern portion of SOI. Not expected in urban areas.
Riparia riparia bank swallow	US: — CA: T	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	None	Specific habitat requirements likely limited to the Bidwell Park area. Well documented along the Sacramento River to the west.

Special-Status Species Known or with Potential to Occur in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Setophaga petechia yellow warbler	US: — CA: SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	13, 18	Potential habitat limited to riparian corridors where vegetation is dense. May be discouraged from urban areas.
Strix nebulosa great gray owl	US: — CA: E	Resident of mixed conifer or red fir forest habitat, in or on edge of meadows. Requires large diameter snags in a forest with high canopy closure, which provide a cool sub-canopy microclimate.	None	Maybe highest elevations in Master Plan area.
Strix occidentalis occidentalis California spotted owl	US: P CA: SSC	Mixed conifer forest, often with an understory of black oaks and other deciduous hardwoods. Canopy closure >40%. Most often found in deep-shaded canyons, on north-facing slopes, and within 300 meters of water.	None	One observation of a pair at Bidwell Park in 1984 (OBSID 778); all others much higher in mountains.
Vireo bellii pusillus least Bell's vireo	US: E CA: E	Widespread throughout western Sierra Nevada and coastal valleys and foothills south of Santa Clara County; occurs below 2,000 feet elevation; migrant; winters in Mexico and breeds in California from March to August; nests in dense riparian habitat along streams; prefers willows, cottonwoods, *Baccharis,* wild blackberry, or mesquite; feeds on insects and some fruits.		Documented along portions of the Sacramento River to the North. Unlikely to be present within urban areas. May occur if suitable habitat is present in riparian corridors in the foothills, such as at Bidwell Park.
Mammals				
Antrozous pallidus pallid bat	US: — CA: SSC	Occurs in low elevations in deserts, grasslands, shrublands, woodlands, and forest throughout California from sea level up through mixed conifer forests; most common in open, dry, habitats with rocky areas for roosting; roosts usually in groups of 20 or more; day roosts in caves, crevices, mines, and occasionally hollow trees and buildings; night roosts sometimes in more open areas; roost must protect against high temps; maternity colonies form in April; hibernates in winter; needs water; very sensitive to roost disturbance.	10, 20	One presumed extant record mapped over the City of Chico from 1992 (EONDX 66589). Buildings and trees throughout SOI offer suitable roosting opportunities but most likely to be found in grassland and woodland areas in eastern portion of SOI, especially near water.

Special-Status Species Known or with Potential to Occur in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability
Bassariscus astutus raptor northern California ringtail	US: — CA: FP	Exploit a variety of habitats such as dry, rocky, brush-covered hillsides or riparian areas, typically not far from an open water source. Dens most often in rock crevices, boulder piles, or talus, but also tree hollows, root cavities, and rural buildings. Rarely use same den for more than a few days. Females with litters change dens within 10 days of birth and almost daily after 20 days.	None	Suitable habitat may be present in eastern-most portions of the SOI at mid to upper elevations, possibly in Bidwell Park area.
Eumops perotis californicus western mastiff bat	US: — CA: SSC	Uncommon resident in southeastern San Joaquin Valley and Coast Ranges; conifer and deciduous woodlands, coastal scrub, annual and perennial grassland, desert scrub, chaparral, palm oases, and urban habitats; roosts in crevices on cliff faces, high buildings, trees, and tunnels; needs vertical faces to drop off to take flight; nursery roosts in tight rock crevices or buildings; rarely uses night roosts; nonmigratory; active year-round; eats insects.	10, 11B, 14, 17, 18, 19, 20, 24, 25	Suitable habitat throughout SOI.
Lasiurus frantzii western red bat	US: — CA: SSC	Roosts in the foliage of trees and shrubs, commonly in edge habitats along streams or open fields, and sometimes in orchards or urban areas. Often associated with riparian habitats, particularly those containing sycamores and cottonwoods. Requires water.	10, 10A, 11B, 13, 16, 17, 18	Suitable habitat may be present in throughout SOI, most likely near riparian forests and open water.
Pekania pennanti fisher	US: — CA: SSC	Fishers are found in the Sierra Nevada, Cascades, and Klamath Mountains, and in some locations in the North Coast Range, in old growth conifer forests and deciduous-riparian habitats. Suitable habitat has at least 50% canopy closure with snags and mature, hollow trees which fishers use for denning and shelter.	None	Suitable habitat in the SOI limited to the highest elevations at Bidwell Park and above.
Taxidea taxus American badger	US: — CA: SSC	Found throughout California except in the North Coast area; open grasslands, deserts, and edge of scrub and woodland habitats; requires loose soils; does not occur in irrigated agriculture; active year-round, both nocturnal and diurnal; young are born in March and April; primarily eats small mammals and occasionally reptiles, insects, birds, eggs, and carrion; capable of digging a new den each night.	5, 10, 18, 19, 26, 27	May occur in grassland and open woodland habitats in eastern portion of SOI.

Sources: CDFW 2024a; CDFW 2024b; CNPS 2024; USFWS 2024b; University of California at Davis 2024; Zeiner et al. 1990.

Special-Status Species Known or with Potential to Occur in the Vicinity of the Project

Scientific Name Common Name	Status	Habitat Requirements	Current Projects with Potential for Impacts[1]	SOI Habitat Suitability

Notes: [1] Current project with potential for impacts based on a reconnaissance-level evaluation; all projects will require evaluation to confirm potential for impacts to all special-status species.

US: Federal Classifications

E Listed as endangered
T Listed as threatened
P Proposed for federal listing
C Candidate for federal Listing

CA: State Classifications

E State-listed as endangered
T State-listed as threatened
C Candidate for listing as threatened or endangered
R State-designated as rare
FP California Fully Protected
SSC California Species of Special Concern

CRPR: California Rare Plant Rank

1B Rare, Threatened, or Endangered in California and elsewhere
2B Plants Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension

.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Fairly endangered in California (20-80% occurrences threatened)
.3 Not very endangered in California (<20% of occurrences threatened)

BSA = Biological Study Area
EONDX = Element Occurrence Index
OBSID = California Spotted Owl Database Observation ID
SOI = Sphere of Influence

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APPENDIX C

CULTURAL RESOURCES CONSTRAINTS ANALYSIS

CARLSBAD
CLOVIS
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

December 31, 2024

Tim Loper, P.E.
Carollo Engineers, Inc.
Senior Project Manager
100 West Liberty, Suite 740
Reno, Nevada 89501

Subject: Cultural Resources Constraints Analysis for the Sewer Master Plan Update in Chico, Butte County, California (LSA Project No. CPZ2202.01)

Dear Mr. Loper:

LSA is under contract to Carollo Engineers to conduct a cultural resources constraints analysis for the Sewer Master Plan Update Project (project) in Chico, Butte County, California (Figure 1, Attachment A). As the City of Chico (City) is the Lead Agency, this study is intended to provide planning-level information and standard conditions for compliance with the California Environmental Quality Act.

The study area is the approximately 25,711 acres within the city limits depicted on the United States Geological Survey (USGS) *Nord* 7.5' (1969), *Richardson Springs* 7.5' (1969), *Paradise West* 7.5' (1980), *Ord Ferry* 7.5' (1969), *Chico* 7.5' (1978), *Hamlin Canyon* 7.5' (1969), *Chico* 15' (1949), *Oroville* 15' (1942), *Paradise* 15' (1953), and *Richardson Springs* 15' (1944) topographic maps, Mount Diablo Baseline and Meridian (see Figure 1 in Attachment A).

RECORD SEARCH

Data from the record search conducted at the Northeast Information Center (NEIC) indicate there have been 352 previous studies within the study area. A total of 383 resources (67 prehistoric, 33 historic-period, and 19 multicomponent [having both prehistoric and historic elements] archaeological resources, along with 264 historic period buildings/structures) were formally documented within the project area (Attachment B). Seven additional resources were informally noted within the project area (please see Report #152 in Attachment B).

FINDINGS AND RECOMMENDATIONS

A cultural resources record search was conducted, and substantial numbers of both prehistoric, historic-period and multicomponent resources were formally documented and observed within the study area. Although there has been sustained and severe disturbance from development of the study area, a moderate level of sensitivity for resources should be assumed until focused Phase I cultural resource studies (including surveys, where appropriate) can be conducted on a project-by-project basis. The following Standard Conditions may apply:

- If buried archaeological resources are encountered during earthmoving operations associated with a project, all work in that area should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds and determine appropriate treatment.

- In the event human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall take place until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD will have the opportunity to offer recommendations for the disposition of the remains.

If you have any questions regarding this information, please contact me at Riordan.Goodwin@LSA.net.

Sincerely,

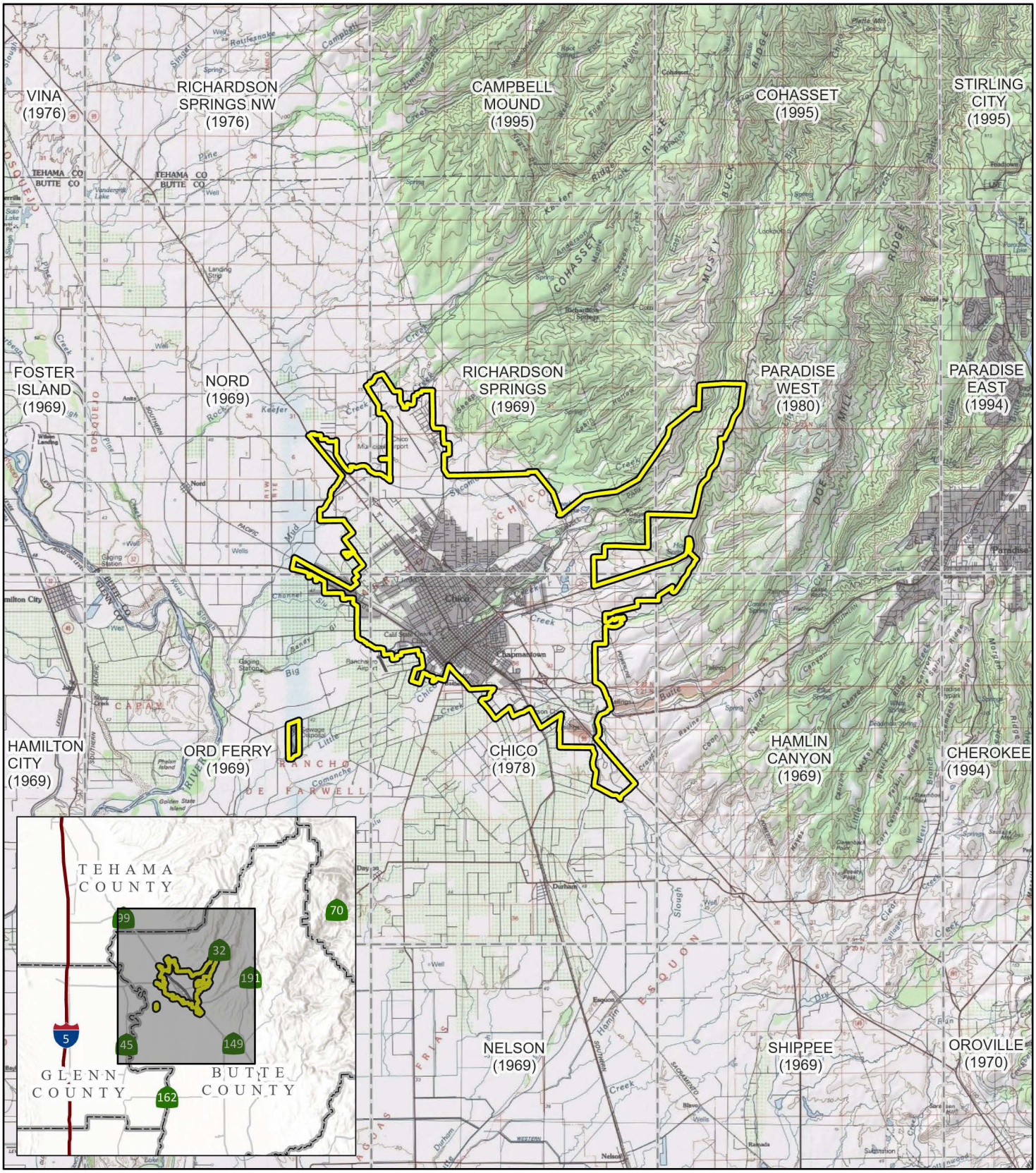
LSA Associates, Inc.

Riordan Goodwin, RA
Archaeologist/Associate

Attachments: A: Figure 1—Project Location and Vicinity
B: Confidential Record Search Results

ATTACHMENT A

FIGURE 1—PROJECT LOCATION AND VICINITY



LSA

Project Location

USGS Quad Boundary

FIGURE 1

N

0 1.5 3

Miles

SOURCE: USGS 7.5' Quandrangles: *Chico, CA* (1978), *Hamlin Canyon, CA* (1969), *Nord, CA* (1969), *Ord Ferry, CA* (1969), *Paradise West, CA* (1980) and *Richardson Springs, CA* (1969).

Chico Sewer Master Plan Update

Project Location and Vicinity

I:\C\CPZ2202\GIS\Pro\Chico Sewer Master Plan Update\Chico Sewer Master Plan Update.aprx (11/5/2024)

ATTACHMENT B

CONFIDENTIAL RECORD SEARCH RESULTS (TRANSMITTED SEPARATELY)

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