



Chico Climate Action Plan Update

Draft Initial Study – Negative Declaration

prepared for

City of Chico

Community Development Department

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Initial Study

Proposed Plan Title

Chico Climate Action Plan (CAP) Update

Lead Agency/Plan Sponsor and Contact

Lead Agency/Plan Sponsor

City of Chico
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Plan Location and Physical Setting

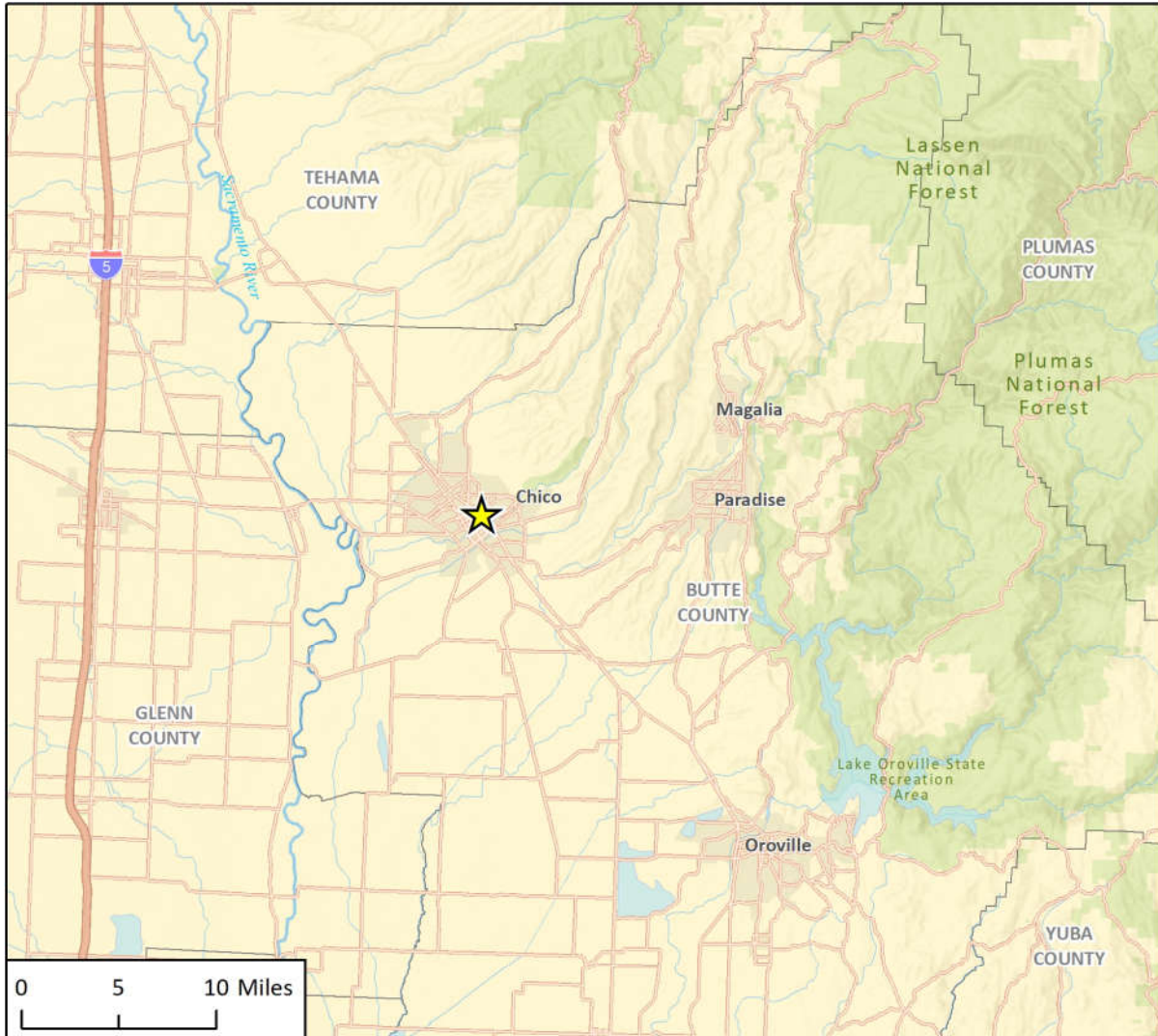
The City of Chico CAP Update applies to all areas and plans/projects within the City of Chico limits. Figure 1 shows the regional location, and Figure 2 shows the plan location. The plan location includes all of Chico's incorporated lands.

Regional Location and Setting

The City of Chico is approximately 34 square miles within the northwestern portion of Butte County and the larger Sacramento Valley. The City primarily sits on the Sacramento Valley floor with a small eastern portion of the City paralleling Big Chico Creek down from the Sierra Nevada foothills into the flatter portions of the City. The City is bordered by unincorporated Butte County on all sides and is near the boundaries of Tehama County and Glenn County. Immediately to the north of the City lies predominantly agricultural and undeveloped lands, to the east are the Sierra Nevada Foothills and the City of Paradise, to the south is predominantly agricultural land and the community of Durham, and to the west is predominantly agricultural lands and the community of Hamilton City. The nearest major cities are Sacramento and Redding, which are approximately 80 miles to the south and 60 miles to the north of Chico, respectively.

Vehicular access to Chico is primarily provided by State Route (SR) 32 (Deer Creek Highway) and SR 99 (Golden State Highway). The City is served by several public transit facilities including the Butte County Regional Transit B-Line bus, the Plumas County Transit System bus, the Glenn Ride bus, Amtrak passenger rail, and Greyhound Lines Inc motorcoach services. In addition, the City is accessible by the Chico Municipal Airport and Sacramento International Airport.

Figure 1 Regional Location



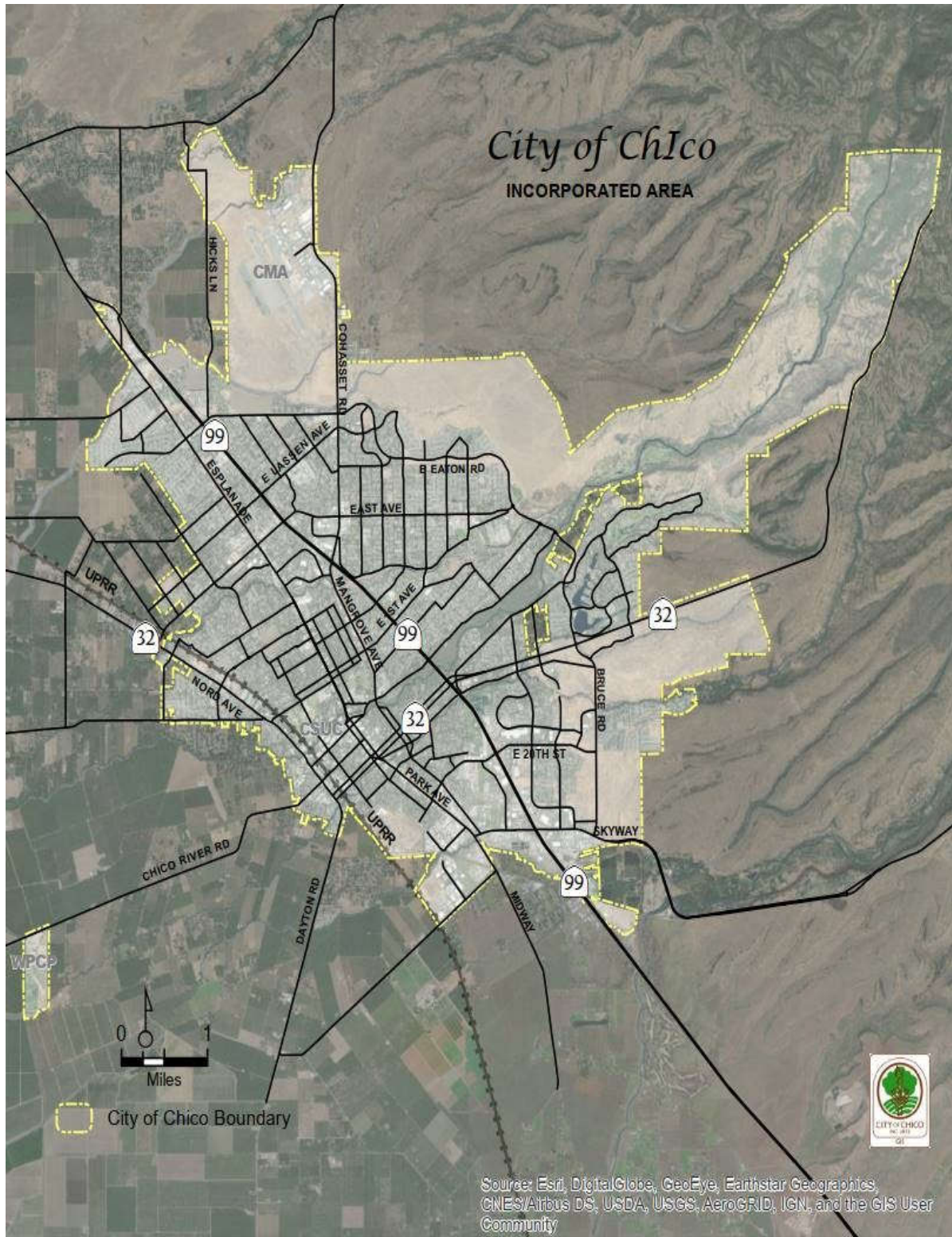
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★ City of Chico (Plan Location) 



Fig. 1 Regional Location

Figure 2 Plan Location



Local Setting

Chico is the most populous city in Butte County.¹ The City supports a diverse range of industries, including agriculture, recreation, tourism, healthcare manufacturing, and education. The City is home to California State University at Chico, Enloe Medical Center, which serves as the regional medical hospital and level II Trauma Center, and Bidwell Park, which covers 17 percent of the City's geographical extent. Residential uses comprise the largest portion of existing land uses within the City and its Sphere of Influence, with parks, open space and public/quasi-public land uses accounting for the second largest portion of existing land uses.²

The City is located primarily on the Sacramento Valley floor, near the foothills of the Sierra Nevada mountain range. The City is located approximately 230 feet above mean sea level, and its topography is generally flat with some areas of hilly terrain near the eastern city limits. Eight creeks and waterways run through the City and drain westward from the Sierra Nevada foothills toward the Sacramento River, including the Big Chico Creek, Little Chico Creek, and Lindo Channel (or Sandy Gulch).^{2,3} The City is characterized by a warm, temperate climate with dry summers and rainier winters. The warmest months of the year in Chico are July and August, and the coldest months of the year are December and January. The annual average daily maximum temperature is 75.2 degrees Fahrenheit (°F), while the annual average daily minimum temperature is 47.0°F. Average monthly rainfall measured in the local area since 1973 varies from 0.02 inch in July to 4.86 inches in January.⁴

Existing Setting

Sustainability and GHG Reduction Efforts Setting

City of Chico Sustainability and GHG Reduction Efforts

The City has implemented a variety of environmental programs since 2007 contributing to GHG reductions. The following is a list of the City's primary sustainable and climate protection programs:

- Sustainability Task Force established (2007)
- 2030 General Plan adopted (2011)
- 2020 Climate Action Plan adopted (2012)
- Hazard Mitigation Plan prepared (2013)
- Sustainable Solutions Turnkey Initiative begins (2016)
- Vulnerability Assessment conducted (2018)
- Climate Action Commission established (2019)
- Wastewater Treatment Plant upgrades (2018)
- Chico Bicycle Plan adopted (2019)
- Community Choice Aggregation authorized (2019)

¹ California Department of Finance. 2021. E-5 Population and Housing Estimates for Cities, Counties, and the State, 2011-2020 with 2010 Census Benchmark. Available: <<https://www.dof.ca.gov/Forecasting/Demographics/Estimates/e-5/>>. Accessed May 14, 2021.

² Chico, City of. 2010. General Plan Update Draft Environmental Impact Report. Available: <<https://chico.ca.us/sites/main/files/file-attachments/4.1landuse.pdf?1577755464>>. Accessed March 23, 2021.

³ Butte County. 2019. Local Hazard Mitigation Plan. Available: <<https://www.buttecounty.net/oem/mitigationplans>>. Accessed March 23, 2021.

⁴ Iowa State University. 2021. Iowa Environmental Mesonet: Chico Municipal Station. Available: <https://mesonet.agron.iastate.edu/sites/monthlysum.php?station=CIC&network=CA_ASOS>. Accessed March 23, 2021.

Regional Sustainability and GHG Reduction Efforts

In coordination with Butte County, the State of California, and the federal government, the City of Chico has committed to implementing regional and State policies related to GHG emissions reduction. As follows is a summary of the regional GHG emissions reduction efforts, which the City of Chico CAP Update is intended to be consistent with or exceed.

2020 Regional Transportation Plan/Sustainable Communities Strategy

The Butte County Association of Governments (BCAG) adopted the 2020 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) in December 2020. The RTP/SCS outlines policies, projects, and programs required to improve the County's transportation system over the next 20 years and demonstrates how the region will integrate transportation and land use planning to meet the greenhouse gas reduction targets established by Senate Bill (SB) 375 and air quality requirements established by the State Implementation Plan. The 2020 RTP/SCS maintains 14 policies from the 2016 RTP/SCS related to topics such as roadways, public transit, goods movement, and land use, and adds an emergency preparedness policy in light of recent climate change-driven disasters, such as the Camp Fire.⁵

Butte County Transit and Non-Motorized Transportation Plan

In 2015, BCAG adopted the Transit and Non-Motorized Transportation Plan (Plan) to provide the County with a long-range plan for enhancing and expanding public transit, bicycle facilities, and pedestrian access to transit within the County. The Plan's goals are to support the sustainable growth targets contained within the RTP/SCS, improve quality of life for residents, reduce GHG emissions, and reduce congestion.⁶

State Sustainability and GHG Reduction Efforts

As follows is a summary of the State GHG emissions reduction efforts, which the City of Chico CAP is intended to be consistent with or exceed.

California Senate Bill 375

In 2008, Senate Bill 375 (SB 375) enhanced the State's ability to reach AB 32 targets by directing CARB to develop regional GHG emissions reduction targets to be achieved from passenger vehicles for 2020 and 2035. In addition, SB 375 directs each of the State's 18 major Metropolitan Planning Organizations (MPO) to prepare a sustainable community's strategy (SCS) that contains a growth strategy to meet such regional GHG emissions reduction targets for inclusion in the respective regional transportation plan (RTP).

On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. BCAG was assigned targets of a six percent reduction in per capita GHG emissions from passenger vehicles by 2020 and a seven percent reduction in per capita GHG

⁵ Butte County Association of Governments (BCAG). 2020. Butte County Regional Transportation Plan/Sustainable Communities Strategy. Available: <<http://www.bcag.org/documents/planning/RTP%20SCS/2020%20RTP%20SCS/Document%20Chapters/2020%20RTP%20SCS%20Document-ALL%20REVISED.pdf>>. Accessed March 23, 2021.

⁶ Butte County Association of Governments (BCAG). 2015. Transit and Non-Motorized Transportation Plan. Available: <<http://www.bcag.org/Planning/Transit--Non-Motorized-Transportation-Plan/index.html>>. Accessed March 23, 2021.

emissions from passenger vehicles by 2035. On December 10, 2020, BCAG formally adopted the 2020 RTP/SCS, which meets the requirements of SB 375.

California Executive Order S-3-05

In 2005, the California governor issued Executive Order (EO) S-3-05, which identifies Statewide GHG emissions reduction targets to achieve long-term climate stabilization as follows:

- Reduce GHG emissions to 1990 levels by 2020
- Reduce GHG emissions to 80 percent below 1990 levels by 2050

In response to EO S-3-05, California Environmental Protection Agency (CalEPA) created the Climate Action Team (CAT), which in March 2006 published the Climate Action Team Report (the “2006 CAT Report”). The *2006 CAT Report* identified a recommended list of strategies that the State could pursue to reduce GHG emissions. These are strategies that could be implemented by various State agencies to ensure that the emission reduction targets in EO S-3-05 are met and can be met with existing authority of the State agencies. The strategies include the reduction of passenger and light duty truck emissions, the reduction of idling times for diesel trucks, an overhaul of shipping technology/infrastructure, increased use of alternative fuels, increased recycling, and landfill methane capture, among others.

California Assembly Bill 32

In 2006, the California legislature signed Assembly Bill (AB) 32 – the Global Warming Solutions Act – into law, requiring a reduction in Statewide GHG emissions to 1990 levels by 2020 and California Air Resources Board (CARB) preparation of a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 required CARB to adopt regulations to require reporting and verification of Statewide GHG emissions. Based on this guidance, CARB approved a 1990 Statewide GHG level and 2020 limit of 427 MT of CO₂e.

California Climate Change Scoping Plan

In 2008, CARB approved the original California Climate Change Scoping Plan, which included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted and implemented since approval of the Scoping Plan.

California Climate Change Scoping Plan Update (2013)

In 2013, CARB approved the first update to the California Climate Change Scoping Plan. The 2013 Scoping Plan Update defined CARB climate change priorities for the next five years and set the groundwork to reach post-2020 Statewide GHG emissions reduction goals. The 2013 Scoping Plan Update highlighted California’s progress toward meeting the “near-term” 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluated how to align the State’s longer-term GHG reduction strategies with other State policy priorities, including those for water, waste, natural resources, clean energy, transportation, and land use.

California Executive Order B-30-15

In 2015, the California governor issued Executive Order B-30-15, which established a Statewide mid-term GHG reduction target of 40 percent below 1990 levels by 2030.

California Senate Bill 32

In 2016, the California legislature signed Senate Bill 32 (SB 32) into law, extending AB 32 by requiring further reduction in Statewide GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, as well as implementation of recently adopted policies and policies, such as SB 350 and SB 1383 (see below).

California Climate Change Scoping Plan Update (2017)

In 2017, CARB approved the second update to the California Climate Change Scoping Plan. The 2017 Scoping Plan put an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan Update does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with Statewide per-capita goals of six MT of CO₂e by 2030 and two MT of CO₂e by 2050. As stated in the 2017 Scoping Plan Update, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects, because they include all GHG emissions sectors in the State.⁷

California Executive Order B-55-18

In 2018, the California governor issued Executive Order B-55-18, which established a new Statewide goal of achieving carbon neutrality by 2045 and maintaining net negative emissions thereafter. This goal is in addition to the existing Statewide GHG reduction targets established by SB 32.

For more information on the Senate and Assembly Bills, Executive Orders, and Scoping Plans discussed above, and to view reports and research referenced above, please refer to the following websites: www.climatechange.ca.gov and www.arb.ca.gov/cc/cc.htm.

Assembly Bill 197, State Air Resources Board Greenhouse Gases Regulations

In 2016, the California legislature approved AB 197, a bill linked to SB 32, which increases legislature oversight over the California Air Resources Board and directs the California Air Resources Board to prioritize disadvantaged communities in its climate change regulations, and to evaluate the cost-effectiveness of measures it considers. AB 197 requires the ARB to “protect the State’s most impacted and disadvantaged communities [and] consider the social costs of the emissions of greenhouse gases” when developing climate change programs. The bill also adds two new legislatively appointed non-voting members to the ARB, increasing the Legislature’s role in the ARB’s decisions.

⁷ California Air Resources Board (CARB). 2017. California’s 2017 Climate Change Scoping Plan. Available: <https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf>. Accessed March 23, 2021.

Senate Bill 350, Clean Energy and Pollution Reduction Act of 2015

In October 2015, SB 350 was signed into law, establishing new clean energy, clean air, and GHG reduction goals for 2030 and beyond. SB 350 codifies Governor Jerry Brown’s aggressive clean energy goals and establishes California’s 2030 GHG reduction target of 40 percent below 1990 levels. To achieve this goal, SB 350 increases California’s renewable electricity procurement goal from 33 percent by 2020 (legislation originally enacted in 2002) to 50 percent by 2030. Renewable resources include wind, solar, geothermal, wave, and small hydroelectric power. In addition, SB 350 requires the State to double State-wide energy efficiency savings in electricity and natural gas end uses by 2030 from a base year of 2015.

Senate Bill 100, The 100 Percent Clean Energy Act of 2018

In September 2018, Governor Brown signed SB 100, requiring that the State’s load serving entities (including energy utilities and community choice energy programs) must procure energy generated 100 percent from Renewables Portfolio Standard (RPS) for eligible renewable resources by 2045.

California Energy Efficiency Strategic Plan of 2008

In September 2008, the California Public Utilities Commission (CPUC) adopted California’s first Long Term Energy Efficiency Strategic Plan, presenting a single roadmap to achieve maximum energy savings across all major groups and sectors in California. The Strategic Plan was subsequently updated in January 2011 to include a lighting chapter. The Strategic Plan sets goals of all new residential construction and all new commercial construction in California to be zero net energy (ZNE) by 2020 and 2030, respectively. In 2018, the California Energy Commission voted to adopt a policy requiring all new homes in California to incorporate rooftop solar. This change will go into effect in January 2020 with the adoption of the 2019 Title 24 Code and is a step towards the State achieving its goal of all residential new construction being ZNE by 2020. Additionally, the Strategic Plan sets goals of 50 percent of existing commercial building to be retrofit to ZNE by 2030 and all new State buildings and major renovations to be ZNE by 2025.

Senate Bill 1275, Charge Ahead Initiative

In September 2014, Senate Bill 1275 was signed into law, establishing a State goal of one million zero-emissions and near-zero-emissions vehicles in service by 2020 and directing the Air Resources Board to develop a long-term funding plan to meet this goal. SB 1275 also established the Charge Ahead California Initiative requiring planning and reporting on vehicle incentive programs and increasing access to and benefits from zero-emissions vehicles for disadvantaged, low-income, and moderate-income communities and consumers.

Assembly Bill 1493, the Pavley Bill

In 2002, the California State Legislature enacted Assembly Bill 1493 (aka “the Pavley Bill”), which directs the Air Resources Board to adopt standards that will achieve “the maximum feasible and cost-effective reduction of greenhouse gas emissions from motor vehicles,” taking into account environmental, social, technological, and economic factors. In September 2009, the ARB adopted amendments to the “Pavley” regulations to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The Pavley Bill is considered to be the national model for vehicle emissions standards. In January of 2012, the ARB approved a new emissions control program for vehicle model years 2017 through 2025. The program combines the control of smog, soot, and greenhouse gases

and the requirement for greater numbers of zero emission vehicles into a single package of standards called Advanced Clean Cars.

Assembly Bill 117, Community Choice Aggregation

Assembly Bill 117 establishes the creation of Community Choice Aggregation (CCA) that fosters clean and renewable energy markets. CCA allows cities and counties to aggregate the buying power of individual jurisdictions. The California CCA markets were created as an answer to the brownouts and energy shortages of the early 2000's. AB 117 was passed in 2002 as an answer to California's increased energy independency by incorporating more alternative and renewable energy sources into its energy portfolio. With AB 117, municipalities can provide alternative energy choices to their local carrier (e.g., the Pacific Gas and Electric Company [PG&E]). Marin Clean Energy was the first CCA in the State of California to go online with a 50 percent to 100 percent clean energy portfolio in 2010. Peninsula Clean Energy (PCE) was created in February 2016 when all 20 towns/cities in San Mateo County, plus the County of San Mateo, voted unanimously to form a Joint Powers Authority to administer the program. PCE is a public, locally controlled electricity provider that gives PG&E customers in San Mateo County the choice of having 50 percent to 100 percent of their electricity supplied from clean, renewable sources at competitive rates. CCAs are governed by the California Public Utilities Commission (CPUC). SB 790 further ensures fair and transparent competition by creating a code of conduct and guiding principles for entrants into the CCA field.

Senate Bill 97, CEQA Guidelines for Addressing GHG Emissions

The California Environmental Quality Act (CEQA) requires public agencies to review the environmental impacts of proposed projects, including General Plans, Specific Plans, and specific kinds of development projects. In February 2010, the California Office of Administrative Law approved the recommended amendments to the State CEQA Guidelines for addressing GHG emissions. The amendments were developed to provide guidance to public agencies regarding the analysis, mitigation, and effects of GHG emissions in draft CEQA documents.

Butte County Air Quality Management District CEQA Guidelines

The Butte County Air Quality Management District (BCAQMD) published the *CEQA Air Quality Handbook* in October 2014, which provides guidelines for the assessment of air quality and GHG emissions impacts for projects subject to CEQA review. The *CEQA Air Quality Handbook* notes that BCAQMD has not adopted a threshold for GHG emissions impacts and recommends that projects are assessed based on compliance with an approved GHG Emissions Reduction Plan, the Lead Agency's adopted threshold, or consistency with the goals of AB 32. According to the BCAQMD, if a plan or project is consistent with an adopted GHG Emissions Reduction Plan, then it can be presumed that the plan or project would not result in significant impacts related to GHG emissions. This approach is consistent with State CEQA Guidelines, Section 15183.5, which states that:

“Lead agencies may analyze and mitigate the significant impacts of greenhouse gas emissions at a programmatic level, such as...a plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an [Environmental Impact Report] containing a programmatic analysis of greenhouse gas emissions.”

General Plan Designation and Zoning

The CAP would be implemented throughout the City and would occur in all Chico General Plan designations and zoning designations. The plan would not alter any existing designations.

Description of the CAP Update

The Chico CAP Update incorporates the many climate protection programs noted above that the City of Chico has in place and will continue to reduce GHG emissions. The City has developed the CAP Update in order to achieve a number of objectives, including a safer future and enhanced quality of life for the community, new economic opportunities through green jobs, enhanced social equity and citizen engagement on the issue of climate change, and reduced obstacles for building affordable housing. The CAP Update provides a foundation for future development efforts in the City of Chico. It is anticipated that environmental documents for future development projects will identify and incorporate applicable GHG reduction measures from the CAP Update.

In 2021, Chico is actively engaged in addressing climate change, sustainability, and reductions in GHG emissions. The CAP Update addresses communitywide GHG emissions and includes a target to reduce communitywide GHG emissions output to 2.71 metric tons of carbon dioxide equivalent (MT of CO₂e) per person (or 292,437 MT of CO₂e in total emissions) by 2030. This corresponds to an 80 percent reduction in per capita emissions (or a 46 percent reduction in total emissions) below 1990 levels by 2030, exceeding the California Senate Bill 32 target for 2030 to reduce total GHG emissions 40 percent below 1990 levels. In order to meet the 2030 City emissions target, the City has specifically proposed an 80 percent per capita emissions reduction target of 2.71 MT of CO₂e per person for 2030 (a 46 percent emissions reduction target of 292,437 MT of CO₂e in total emissions) compared to 1990 levels as the reference year. The Chico CAP Update assessed herein is based upon the 2005 and 2017 community-level inventories and formulates a list of actions or “measures” to achieve the City’s sustainability goals.

The 2005 GHG emissions inventory provides an important foundation for the CAP, providing the basis for an emissions back-cast to 1990 to serve as the reference year from which the City’s target to reduce per capita emissions 80 percent below 1990 levels by 2030 has been developed. Approximately 8.8 MT of CO₂e per person (637,518.7 MT of CO₂e total) were emitted in Chico in 2005. The 2017 inventory also provided the basis for the GHG emissions forecast, against which progress toward the City’s 2030 target can be measured. Approximately 5.07 MT of CO₂e per person (466,366.2 MT of CO₂e total) were emitted in Chico in 2017. GHG emissions in the 2005 and 2017 inventories were emitted from the residential and commercial energy, transportation, and waste sectors. The residential and commercial energy sector represents emissions that result from electricity and natural gas used in both private and public sector buildings and facilities. The transportation sector includes emissions from gasoline and diesel sales within the City. The transportation sector was the largest contributor to Chico’s GHG emissions in both 2005 and 2017, followed by energy and waste. Table 1 provides the Chico community GHG emissions in 2017 by sector as well as each sector’s percentage of communitywide emissions.

Table 1 Chico 2017 Communitywide GHG Emissions by Sector

Sector	GHG Emissions (MT of CO₂e)	Percentage of GHG Emissions
Gasoline Sales	181,031.0	39%
Diesel Sales	101,854.1	22%
Commercial Electricity	32,657.6	7%
Residential Electricity	30,757.0	7%
Commercial Gas	31,925.8	7%
Residential Gas	64,768.9	14%
Waste to Landfill	23,371.8	5%
Total	466,366.2	100%
Population	92,022	N/A
Per Capita Emissions (MT of CO₂e/person)	5.07	N/A

MT of CO₂e = metric tons of carbon dioxide equivalent

As shown in Table 1, the largest sectors of GHG emissions are related to transportation (specifically gasoline and diesel sales) and building energy use (specifically residential and commercial electricity and natural gas use). As part of the CAP Update, Chico is committed to a per capita emissions reduction target of 80 percent below 1990 levels by 2030 and an interim target of 73 percent below 1990 levels by 2025. This 2030 GHG emissions goal is selected to be consistent with SB 32 State emissions targets and BCAG regional passenger vehicle emissions targets, to be consistent with CEQA for a qualified GHG emissions reduction strategy, and to be achievable by City-supported measures identified in the CAP Update. The CAP Update includes a business-as-usual (BAU) forecast of GHG emissions, based on the 2017 inventory, that will enable the City of Chico to estimate the amount of emissions reductions needed to meet its per capita reduction targets.

The CAP Update includes measures to make residential, commercial, and municipal buildings more energy efficient and increase the amount of locally produced renewable energy. It recommends development patterns that reduce urban sprawl and emphasize complete streets that allow people to go about their business on foot, by bicycle, or via public transportation. It also offers ways to divert organic waste that would otherwise go to landfills. In addition, the CAP update includes measures to increase urban greenspace and trees for carbon sequestration and to provide community education and outreach regarding the CAP and local sustainability efforts. Table 2 includes a complete list of the CAP Update measures and descriptions of respective supporting actions as well as anticipated annual GHG reductions by 2030.

Table 2 Chico CAP Update Measures and Actions

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Measure E-1	Procure Carbon-Free Electricity for the Community Through a CCA by 2024 and Maintain Opt-Out Rates of 5% for Residential and 15% for Commercial Through 2030 and 2045	
Action E-1-1	Provide carbon neutral electricity to the community: Procure carbon neutral electricity for the community through Butte Choice Energy Community Choice Aggregation (CCA), in accordance with the ordinance authorizing the implementation of a CCA Program through a Joint Powers Agreement with Butte County, amending Title 15 of the Municipal Code. Automatically enroll community and municipal accounts in the 100% renewable energy option by 2024 (or as market conditions prove favorable) with an opt-out option	2030: 39,170 2045: 0
Action E-1-2	Partner with Butte Choice Energy to conduct community outreach and track opt-out rates: Work with Butte Choice Energy to conduct targeted community outreach with the aim of maintaining low opt-out rates (5% or less for residential accounts and 15% or less for commercial accounts). Track opt-out rates through Butte Choice Energy and share results publicly on an annual basis.	Supportive
Measure E-2	Eliminate Natural Gas in All New Building Construction Starting in 2025 to Reduce Natural Gas 6% by 2030 and 16% by 2045 Compared to the Adjusted Forecast	
Action E-2-1	Require new construction to be all-electric: Adopt a new ordinance which bans the installation of natural gas in new residential and commercial construction by 2025 if not already required by the State’s 2025 cycle update to the Building Energy Efficiency Standards (California Code of Regulations Title 24, Parts 6 and 11). The ordinance will only apply for building types where electrification is shown to be cost-effective. Implementation will consist of the following: <ol style="list-style-type: none"> 1. Engage and educate the community and stakeholders 2. Conduct a Cost-effective study 3. Develop and draft the new building ordinance for public process and revisions 4. Formally adopt the new building ordinance 5. Apply to the California Energy Commission for final ordinance approval 	2030: 6,730 2045: 19,560

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Measure E-3	Electrify Existing Residential Buildings Starting in 2027 to Reduce Overall Residential Natural Gas Consumption to 100 Therms/Person by 2030 and 30 Therms/Person by 2045	
Action E-3-1	<p>Electrify existing residential buildings: If not already required by the State’s Building Energy Efficiency Standards (California Code of Regulations Title 24, Parts 6 and 11), adopt an electrification ordinance for existing residential buildings to transition natural gas to electric in two phases, to be implemented through the building permit process.</p> <p>PHASE I: Limit expansion of natural gas lines in existing buildings by 2025.</p> <p>PHASE II: Require HVAC system replacements and hot water heaters replacements to be all-electric by 2027.</p> <p>Implementation will consist of the following:</p> <ol style="list-style-type: none"> 1. Engage and educate the community and stakeholders 2. Conduct a Cost-effective study 3. Develop and draft the new building ordinance for public process and revisions 4. Formally adopt the new building ordinance 5. Apply to the California Energy Commission for final ordinance approval 	<p>2030: 13,47020</p> <p>2045: 50,36049</p>
Action E-3-2	<p>Update RECO to support electrification : Expand the City’s Residential Energy Conservation Ordinance (RECO), Title 16 of the Municipal Code, to cover substantial remodels (over 50%). Amend RECO to require electrification and/or energy conservation improvements for substantial remodels (over 50%) in the same way that RECO currently requires these types of upgrades upon transfer/sale of homes and apartments. The amendment will include electrification options such as installation of a 200 amp panel and/or installation of electric heat pump appliances for HVAC and hot water heaters as well as the option to go beyond the base requirements for energy conservation set forth in the State’s Building Energy Efficiency Standards (California Code of Regulations Title 24, Part 6).</p>	
Action E-3-3	<p>Electrify municipal buildings: Adopt decarbonization plan to decarbonize municipal buildings by 2045. This plan would include a new building electrification policy as well as an existing building natural gas phase-out policy. Decarbonization of municipal buildings will be driven by the PG&E Sustainable Solutions Turnkey Program, which aims to achieve net neutrality in electricity usage by 2030, and work towards full decarbonization by 2045.</p>	<p>2030: 460</p> <p>2045: 1,150</p>
Action E-3-4	<p>Perform an electrification feasibility study: Conduct a feasibility study/existing building analysis to understand the costs associated with electrifying existing residential and commercial buildings in the City of Chico.</p>	Supportive
Action E-3-5	<p>Track electrification progress: Develop a permit tracking program for existing building electrification to track annual progress in achieving the City’s electrification goals.</p>	Supportive

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Action E-3-6	<p>Identify and partner with stakeholders to conduct electrification outreach, promotion, and education: Leverage partnerships with stakeholders to conduct outreach, promotion, and education around new and existing building electrification, including:</p> <ul style="list-style-type: none"> ▪ Induction/electric stove cooking competition to demonstrate the competitiveness of electric stoves for replacing gas stoves ▪ Information sessions/events that educate the public on safety concerns around gas stoves and health/cost benefits of replacing water heaters and space heaters with electric heat pumps ▪ Develop financial and technical resources, including hosting workforce development trainings for installers and building owners/operators to discuss benefits and technical requirements of electrification and move towards all-electric requirements ▪ Conduct internal trainings with planners and building officials on state decarbonization goals and incentives available for electric homes ▪ Establish a comprehensive, coordinated electrification education campaign for property owners and occupants, including an updated list of rebates and incentives available for residents wanting to electrify their homes 	Supportive
Action E-3-7	<p>Partner with stakeholders to develop resident-level funding pathways for implementing electrification ordinance: Leverage partnerships with stakeholders and establish funding pathways to ease community members’ costs when complying with an electrification ordinance or meeting State standards, including:</p> <ul style="list-style-type: none"> ▪ Investigation of a transfer tax rebate for electric panels and/or other upgrades ▪ Partner with PG&E, Butte Choice Energy, and/or other stakeholders to create or expand electrification/retrofit programs and incentives, especially for low-income residents. These could include the PACE program, PG&E’s low-income weatherization program, tariffed on-bill financing, metered energy efficiency, or others. 	Supportive
Measure E-4	Increase Generation and Storage of Local Renewable Energy	
Action E-4-1	<p>Coordinate with stakeholders to provide local energy generation support and incentives for the community: Partner with PG&E and/or other stakeholders to support and incentivize local on-site energy generation and storage resources within the community with a focus on underserved communities. This could include a co-located community solar and storage project.</p>	Supportive
Action E-4-2	<p>Streamline battery storage building permit requirements: Coordinate City departments to establish and streamline battery storage building permit requirements to allow for easier implementation of these technologies within the community.</p>	Supportive
Action E-4-3	<p>Conduct an energy generation feasibility study: Conduct a feasibility study through the PG&E Sustainable Solutions Turnkey (SST) program to assess cost and applicable locations for installation of battery back-up systems, generators, or a micro-grid throughout the City. Engage with the community to determine how local energy generation systems can support community infrastructure as well as critical public infrastructure</p>	Supportive

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Action E-4-4	<p>Install renewable energy technology at municipal facilities: Implement the comprehensive PG&E Sustainable Solutions Turnkey Program to install renewable energy technology at municipal facilities. Key energy conservation measures include:</p> <ul style="list-style-type: none"> ▪ Increasing backup generation capacity and adding battery storage at City facilities ▪ Upgrading aeration systems at the Wastewater Treatment Plant to reduce energy consumption by 11% ▪ Upgrading and automating all City HVAC systems ▪ Installing solar PV at the Municipal Services Parking Lot to create 290 kW energy savings ▪ Replacing aging 1MW solar PV system at the Wastewater Treatment Plant, and adding an additional 738 kW of solar PV within the existing footprint to create a total of 1.75 MW energy savings ▪ Updating City-operated irrigation control system design and development City-wide. 	Supportive
Measure T-1	Improve Active Transportation Infrastructure to Achieve Greater Than 6% Bicycle Mode Share by 2030 and 12% Bicycle Mode Share by 2045	
Action T-1-1	<p>Implement Chico Bicycle Master Plan: Implement the Chico Bicycle Plan 2019 Update in accordance with the Plan's goals, objectives, and policies. Implementation of the Plan may include:</p> <ul style="list-style-type: none"> ▪ Adding additional miles to the bikeway network ▪ Implementing new end-of-trip facilities and enforcement protocols to reduce bicycle theft ▪ Conducting road repairs and road maintenance ▪ Improving/expanding wayfinding, safety, and comfort ▪ Integrating with transit and other transport modes ▪ Conducting promotion and education around biking in Chico ▪ Identifying and competing for funding sources 	2030: 1,530 2045: 1,500
Action T-1-2	Require shaded and convenient bike parking: Require shaded Park-a-Bike style rack or equivalent when installing bike parking in new developments.	Supportive
Action T-1-3	Require major road upgrades to include bicycle infrastructure: Require major road upgrades to include bicycle infrastructure and its maintenance unless a significant cost/feasibility issue is shown. Update Title 18 Standard Details on each roadway section type to include the applicable bikeway modifications such as Type II lanes and buffered bikeway.	Supportive
Action T-1-4	Perform a street/intersection study: Conduct a street/intersection study to identify streets and intersections that can be improved for pedestrians and bicyclists through traffic calming measures and/or where multi-use pathway opportunities exist to increase active transportation.	Supportive

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Action T-1-5	<p>Complete an Active Transportation Plan: Develop and implement an Active Transportation Plan (consistent with the General Plan) that identifies funding strategies and policies for development of pedestrian, bicycle, and other modes of alternative transportation projects. Work with the City’s bike/ped working group to identify high priority areas. Example improvements include:</p> <ul style="list-style-type: none"> ▪ Pave shoulders of streets that have high traffic counts ▪ Separate bike lanes from motor traffic with concrete bumper blocks or better ▪ Establish a safe east-west connection over highway 99 	Supportive
Action T-1-6	<p>Identify and partner with stakeholders to conduct outreach, promotion, and education: Leverage partnerships with stakeholders to conduct ongoing outreach, promotion, and education around active transportation in Chico. This could include:</p> <ul style="list-style-type: none"> ▪ Establishing City-wide events or programs that promote active transportation in the community ▪ Regularly updating the City’s Bicycle and Pedestrian Network Map and sharing through City and stakeholder partnership platforms ▪ Supporting Chico Velo in hosting workshops and classes on bike riding, safety, and maintenance by certified instructors ▪ Instituting car-free days downtown, potentially coupled with Farmer’s Market or other large and regular events ▪ Consolidating a list of local employer-provided bicycle parking, lockers, showers, and incentives as a demonstration tool for other interested employers 	Supportive
Action T-1-7	<p>Create a Bike/Ped/Parking Coordinator Position: Create a Bike/Ped/Parking Coordinator position for the City to ensure implementation of active and shared mobility measures.</p>	Supportive
Measure T-2	Improve EV Infrastructure to Achieve Greater Than 23% EV Share of Car Registrations by 2030, and 90% by 2045	
Action T-2-1	<p>Increase privately owned EV charging infrastructure: If not already required by the State’s Building Energy Efficiency Standards, consistent with the Final Butte PEV Readiness Plan, amend the City’s Building Code by 2023 to require the following:</p> <ul style="list-style-type: none"> ▪ EV capable private garages for new single-family and duplex residential development ▪ 20% EV charging capable spaces and panel capacity for new multi-family residential development ▪ 20% EV charging capable spaces for new commercial development ▪ At least 1% working EV charging spaces for all new development and major retrofits 	<p>2030: 28,620</p> <p>2045:105,500</p>
Action T-2-2	<p>Increase publicly accessible EV charging infrastructure: Work with public and private partners to ensure there are at least 942 publicly accessible DCFC and Level 2 EV chargers with the City’s Sphere of Influence, with a focus on providing access to low-income households and affordable housing by 2030. Prioritize locations based on analysis in the Final Butte PEV Readiness Plan.</p>	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Action T-2-3	Increase City-owned EV charging infrastructure: Install new publicly accessible EV chargers at City-owned facilities. Develop and implement a fee for use of City-owned chargers to encourage efficient use and turnover, especially for those without home charging capability. Allocate parking fee revenue towards projects that support EV infrastructure, alternative fuel projects, and active transportation projects.	
Action T-2-4	Identify and partner with stakeholders to develop ZEV-related rebates: Investigate partnerships with public and private stakeholders to develop rebates on at-home electric circuits, panel upgrades, and Level 2 chargers.	Supportive
Action T-2-5	Encourage EV adoption and infrastructure improvements: Conduct outreach, promotion, and education to encourage EV adoption and infrastructure improvements. This could include the following: <ul style="list-style-type: none"> ▪ Providing education and outreach to the community on the benefits of ZEVs, availability of public charging, and relevant rebates and incentives available for businesses and residents ▪ Working with major employers (e.g., CSUC, Fifth Sun, Build.com, Enloe) to provide EV charging for employees and encourage EV adoption among employees 	Supportive
Action T-2-6	Establish electrical and technical standards for electric vehicle supply equipment (EVSE). EVSE standards to be established include construction of equipment, wiring methods, and safety protection, consistent with the California Electrical Code and the Underwriter’s Laboratories guidance on EVSE.	Supportive
Action T-2-7	Establish universal EV signage: Establish universal signage and marking requirements for EV parking spaces.	Supportive
Action T-2-8	Streamline the EVSE permitting and inspection processes: Streamline both the EVSE permitting and inspection processes, which may include: <ul style="list-style-type: none"> ▪ Prioritizing EVSE permitting for faster turnaround times ▪ Establishing flat fees for standard installations ▪ Enabling homeowners and licensed contractors to submit EVSE permit applications online ▪ Allowing EVSE across different zoning classifications ▪ Considering simple EVSE installations as exempt from CEQA on a case-by-case basis ▪ Allowing installation of EVSE as a mitigation measure for large projects ▪ Condensing inspections for more complex installations that do not include panel upgrades or underground conduit ▪ Establishing a 24-hour flexible inspection request program online ▪ Providing shorter inspection windows ▪ Removing requirement for electrician to be present during inspection to decrease consumer costs 	Supportive
Measure T-3	Improve Shared Mobility and Transit Programs and Infrastructure	

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Action T-3-1	<p>Partner with BCAG to improve and expand transit within the City: This could include:</p> <ul style="list-style-type: none"> ▪ Expanded transit service, especially along transit priority corridors, and more frequent and reliable transit service. More frequent transit can begin to act as a shuttle, especially since downtown employees and CSUC students and faculty are eligible for free transit passes ▪ Improved and/or more efficient transit technology ▪ Improved service/communication through interactive service maps, app payments, and real time arrival info ▪ Increased active transportation access to transit stops ▪ Enhanced, comfortable stops and stations ▪ Education and outreach to the community on new and existing shared transit options ▪ Subsidized transit passes ▪ New electric hop-on hop-off trolley service through major points of interest (e.g., downtown, Bidwell Park, Bidwell Mansion, Sierra Nevada, fair grounds, Chico State) 	Supportive
Action T-3-2	<p>Prepare for shared bike programs: Conduct an active transportation share (e.g., bike-share, scooter-share) feasibility study. Update municipal ordinances to prepare the City for shared mobility programs in accordance with the Bicycle Master Plan and the Downtown Access Plan. Consider starting a bike share pilot program in Downtown, ideally with docked e-bikes.</p>	Supportive
Action T-3-3	<p>New employer trip reduction programs: Implement General Plan Action CIRC 9.1.2 to reduce single occupancy vehicle trips associated with work commutes. As a condition of project approval, require new non-residential projects that will employ more than 100 people to submit a Travel Demand Management Plan that identifies strategies to reduce single-occupancy vehicle trips, including encouraging employers to provide transit subsidies, bicycle facilities, alternative work schedules, telecommuting and preferential parking for carpool/vanpools.</p>	Supportive
Action T-3-4	<p>Conduct a transportation equity study: Partner with CSUC to conduct a transportation equity study to investigate current barriers for minority, low-income, and senior populations in disadvantaged communities to take transit, walk, bike, use rideshare, or carshare.</p>	Supportive
Action T-3-5	<p>Conduct a local transportation survey: Support BCAG in conducting local transportation surveys every five years to better understand the community's needs and motivation for traveling by car versus other alternatives such as by bike or bus. Use survey results to inform transit expansion and improvement projects.</p>	Supportive
Action T-3-6	<p>Encourage and facilitate carsharing services: Perform ongoing outreach to carsharing companies about the potential to implement a carsharing program in Chico, preferably electric.</p>	Supportive
Action T-3-7	<p>Encourage use of local transit: Promote use of B-Line for Downtown transit especially. This could include bus open houses and promotion of DoubleMap app</p>	Supportive

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Action T-3-8	Invest in TDM strategies: In accordance with the Downtown Access Plan, designate and use a portion of paid parking revenue to invest in TDM strategies including Actions T-3-1 to T-3-7 that will ensure cost-effective Downtown access by improving transit, bicycle facilities, and create incentives for people to avoid driving	Supportive
Measure T-4	Implement Parking and Curb Management Procedures that Support the Mode Shift Goals of the Overall Transportation Strategy	
Action T-4-1	Utilize dynamic parking pricing Downtown: In accordance with the Downtown Access Plan, utilize dynamic pricing for Downtown area parking, increasing costs of parking during times of high usage and special events.	Supportive
Action T-4-2	Improve curbside management: Improve curbside management in accordance with the Downtown Access Plan. This may include updating the Municipal Code to require active loading only, prohibit double parking, define locations for additional loading zones, and design loading zone signage.	Supportive
Action T-4-3	Encourage parklets downtown: Identify opportunities for development of parklets throughout the City's Downtown, to replace parking spaces with bike parking or outdoor restaurant seating.	Supportive
Action T-4-4	Establish carpool/vanpool/shuttle parking minimums: Update the Zoning Code to establish minimums for carpool/vanpool/shuttle parking requirements in new non-residential development.	Supportive
Measure T-5	Support Implementation of the City's General Plan that Promotes Sustainable Infill development and Mixed-use development in New Growth Areas to Reduce Vehicle Miles Traveled (VMT)	
Action T-5-1	Support infill growth: Continue to support infill growth and thoughtful mixed-use development in new growth areas consistent with the Chico 2030 General Plan and the regional Sustainable Communities Strategy.	Supportive
Measure W-1	Update Waste Hauler Franchise Agreements to Implement Requirements of SB 1383 and Achieve 75% Reduction Below 2014 Levels in Organic Waste to 0.4 Tons of Waste/Person by 2025 and Maintain Through 2045	
Action W-1-1	Require residential and commercial organic waste collection through updated waste hauler contracts: Update waste hauler contracts to include expanded organic waste collection. Pass an ordinance by 2022 requiring residential and commercial organics generators to subscribe to organics collection programs or alternatively report organics self-hauling and/or backhauling. Allow limited waivers and exemptions to generators for de minimis volumes and physical space constraints and maintain records for waivers/exemptions	2030: 7,693 2045: 7,693
Action W-1-2	Require edible food recovery: Adopt an edible food recovery ordinance or similarly enforceable mechanism to ensure edible food generators, food recovery services, and food recovery organizations comply with State requirements to increase recovery rates.	Supportive
Action W-1-3	Partner with North State Rendering to expand use of the digester: Work with North State Rendering to expand use of organics in the digester. Conduct a pilot to demonstrate effectiveness and identify funding sources for a larger expansion.	Supportive

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Action W-1-4	<p>Conduct capacity planning for organic waste collection: Engage in organic waste collection capacity planning by executing the following:</p> <ul style="list-style-type: none"> ▪ Estimate Chico’s disposal of organic waste in tons ▪ Identify and verify amount of available organics waste recycling infrastructure ▪ Estimate the amount of new or expanded capacity needed to process organic waste ▪ Work with the City of Chico’s Recycling and Solid Waste Division and waste haulers to coordinate organic waste delivery to Recology’s Oroville Transfer Station and Ostrom Road organics facility ▪ Develop and submit an implementation schedule highlighting planning effort to provide enough new or expanded organics capacity, including timelines and relevant milestones by the end of the report period ▪ Identify proposed new or expanded facilities that could be used for additional capacity 	Supportive
Action W-1-5	<p>Conduct capacity planning for edible food recovery: Engage in edible food recovery capacity planning by executing the following actions:</p> <ul style="list-style-type: none"> ▪ Estimate the amount of edible food that will be disposed by organics generators in Chico ▪ Work with commercial food generators to reduce excess edible food generation ▪ Work regionally to establish a full list of food recovery organizations that can receive edible food from Chico businesses ▪ Identify proposed new or expanded food recovery capacity ▪ Identify the minimum capacity required to recover 20% of edible food that is estimated to be disposed ▪ If existing and planned capacity is insufficient based on the above process, the City of Chico must develop and submit an implementation schedule highlighting the planning effort to provide enough new or expanded capacity for increasing edible food donations and identify proposed new or expanded facilities to be used to for additional capacity 	Supportive
Action W-1-6	<p>Develop and implement a partnered education and outreach program: Update waste hauler contracts and partner with stakeholders (e.g., Recology, CSUC, Chico State, BEC) to develop and implement an education and outreach program around SB 1383:</p> <ul style="list-style-type: none"> ▪ Coordinate with Recology’s education and outreach personnel to expand on existing community outreach ▪ Conduct outreach and education at schools on composting, recycling, and waste reduction ▪ Provide education to the community on home composting techniques ▪ Inform organics generators/edible food generators on requirements to properly separate materials, organic waste prevention and on-site recycling, methane reduction benefits of composting, and information related to edible food donation ▪ Hold a compost give-away event for Chico residents ▪ Identify percentage of organics generators who are “limited English-Speaking households” or “linguistically isolated.” If more than five percent (5%) of Chico’s organics generators are defined as “limited English-speaking households” or linguistically isolated,” provide education and outreach in a language or languages that will assure the information is understood by that community 	Supportive

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Action W-1-7	Develop and implement an inspection and compliance program: Update waste hauler contracts to implement an inspection and compliance program for the edible food recovery program and organics procurement program with defined enforcement mechanisms and penalties, to begin prior to 2024. Maintain records of compliance in accordance with SB 1383.	Supportive
Measure S-1 Increase Carbon Sequestration by Increasing urban Canopy Cover at Least 10% by 2030 Through New Greenscaping Programs		
Action S-1-1	Implement Chico’s Urban Forest Revitalization Program: Implement the Urban Forest Revitalization Program to plant 700 trees by March 2022 (adopted) and 4,500 trees by 2030 (new goal). Focus on areas of the City with low tree canopy cover based on canopy map and optimize carbon sequestration through management of the existing urban forest.	2030: 260 2045: 260
Action S-1-2	Increase greenspace in Chico: Identify and participate in partnership opportunities necessary to convert public and private spaces into water efficient greenspace and increase the City’s carbon sequestering greenspace by 2030.	Supportive
Action S-1-3	Improve greenspace management to maximize carbon sequestration: Improve management of public open space and park lands, including use of compost, to maximize carbon sequestration. Through permit review, evaluate and ensure that landscaping plans utilize native species identified in the Urban Forest Management Plan where feasible.	Supportive
Action S-1-4	Require shade trees in new major developments: Require new development to include shade trees for enhanced energy savings, provided it would not interfere with solar installation. Tree species and location would be determined in coordination with the City’s Urban Forester. Street tree planting shall also be required for all new single-family subdivisions	Supportive
Measure S-2 Develop and Implement the urban Forest Master Plan		
Action S-2-1	Develop, adopt and implement the urban Forest Master Plan: Create an actionable strategic plan for the City’s urban forest that will guide it to its vision of a healthy, robust and resilient urban forest over the next 40 years. The plan shall include sections on work programs, policies, ordinances, sustainable urban forest management, design, planting, staffing, stewardship, carbon offset, storm water management, creek, open space and natural resource management, public tree inventory, and community participation and education.	Supportive
Action S-2-2	Conduct a canopy cover analysis: Conduct a tree canopy coverage analysis that includes all trees within the city limits, including public and private property trees, open space, natural resources area, creek and riparian areas, and golf courses. The resulting study should provide information on the number of trees and tree density on all identified areas and provide analysis if trees are equitably distributed throughout the city and present a clear picture on where city should strategically invest resources.	Supportive

ID #	Measure and Respective Supporting Actions	Anticipated GHG Emissions Reduction (MT of CO ₂ e)
Action S-2-3	Conduct citywide tree planting analysis: Conduct a tree planting analysis to gain a better understanding of the urban forest’s overall condition. The resulting information should be used to develop management recommendations associated with tree removal, tree planting, trimming cycle adjustments and related maintenance activities. Additionally, the results of this analysis should be used to develop a list of recommended tree species that will be suitable for the city’s current environmental conditions as well as anticipated conditions caused by climate change.	
Measure O-1	Conduct a wholistic community outreach and education program to optimize CAP implementation	
Action O-1-1	Conduct partnered community outreach and education: Develop a plan for ongoing community outreach strategies to maintain education and promotion of the CAP. This includes regular maintenance of the City’s CAP webpage and ongoing PR, working with CUSD to create K-12 lesson plans, and partnering with CSUC and non-profits.	Supportive

Note: MT of CO₂e = metric tons of carbon dioxide equivalent
 Source: Compiled by Rincon based on information contained in the Chico Draft CAP Update.

The measures included in the CAP Update (shown above in Table 2), combined with Statewide legislation, will enable Chico to meet its per capita GHG emissions reduction target of 80 percent below 1990 levels by 2030 and the interim target of 73 percent below 1990 levels by 2025. Table 3 shows the contribution of the Statewide initiatives in conjunction with the CAP Update measures to reduce Chico projected total emissions in 2030.

Table 3 Chico 2030 GHG Reduction Target by Sector

State Initiative	Sector	2030 Reduction in per Capita Emissions (MT of CO ₂ e/person)	2030 Reduction in Total Emissions (MT of CO ₂ e)
Advanced Clean Cars Program	On-road Transportation	1.06	113,662
Renewable Portfolio Standard	All electricity	0.26	28,021
Title 24	Residential Energy	0.01	1,282
A. Total State Initiative Emissions Reductions		1.33	142,965
B. Total CAP Update Emissions Reductions		0.91	97,931
C. Total Expected Emissions Reductions (A+B)		2.24	240,896
D Chico Emissions Reduction Requirement		2.24	240,896
E. Meets/exceeds State Goals? (C > D)		Yes	Yes

MT of CO₂e = metric tons of carbon dioxide equivalent

Table 4 shows the 2025 and 2030 GHG emissions and targets for Chico, including the expected emissions once the measures listed in Table 2 are implemented. Figure 3 and

Figure 4 illustrate, for total and per capita emissions respectively, how the BAU forecast emissions are estimated to increase (in gray), thus widening the emissions reductions needed by 2025 and 2030. Figure 3 and

Figure 4 also show the adjusted forecast emissions (in blue), after State-level initiatives are accounted for, as well as the emissions target/goal pathway trajectory chosen by the City of Chico (in orange), and the emissions reductions after all State-level actions and Chico CAP Update measures are applied (in green).

Table 4 Chico GHG Emissions Projections and Targets

Description	Emissions (MT of CO ₂ e/person)	Emissions (MT of CO ₂ e total)
1990 Emissions	13.56	541,891
2025 BAU Emissions	5.04	541,754
2025 Target Emissions (73% below 1990)	3.65	392,528
2025 Expected Emissions with Implementation of CAP Measures and Actions	3.38	363,535
2030 BAU Emissions	5.00	538,282
2030 Target Emissions (80% below 1990)	2.76	297,386
2030 Expected Emissions with Implementation of CAP Measures and Actions	2.76	297,386

MT of CO₂e = metric tons of carbon dioxide equivalent

Implementation of the CAP Update measures listed in Table 2 could result in physical changes to the environment that could potentially have an impact on the environment. While individual projects resulting from these measures have not been identified for the purposes of this document, the types of actions that could result from realization of the CAP measures are taken into account in considering potential environmental impacts that could occur through implementation of the CAP Update. For example, projects or actions requiring ministerial approval, such as installation of electric vehicle charging stations and supporting infrastructure, as well as new bicycle or pedestrian facilities, would introduce physical changes related to the temporary presence and operation of construction vehicles and equipment during installation of required facilities and the long-term presence of new facilities such as bike and pedestrian facilities, solar arrays, and electric vehicle charging stations, which could alter pedestrian and vehicular traffic patterns. Future plans or projects requiring discretionary approval would be subject to environmental review under CEQA, and individual impact analyses will identify required plan- or project-specific mitigation measures where applicable.

Figure 3 Chico Total GHG Emissions Projections and Targets

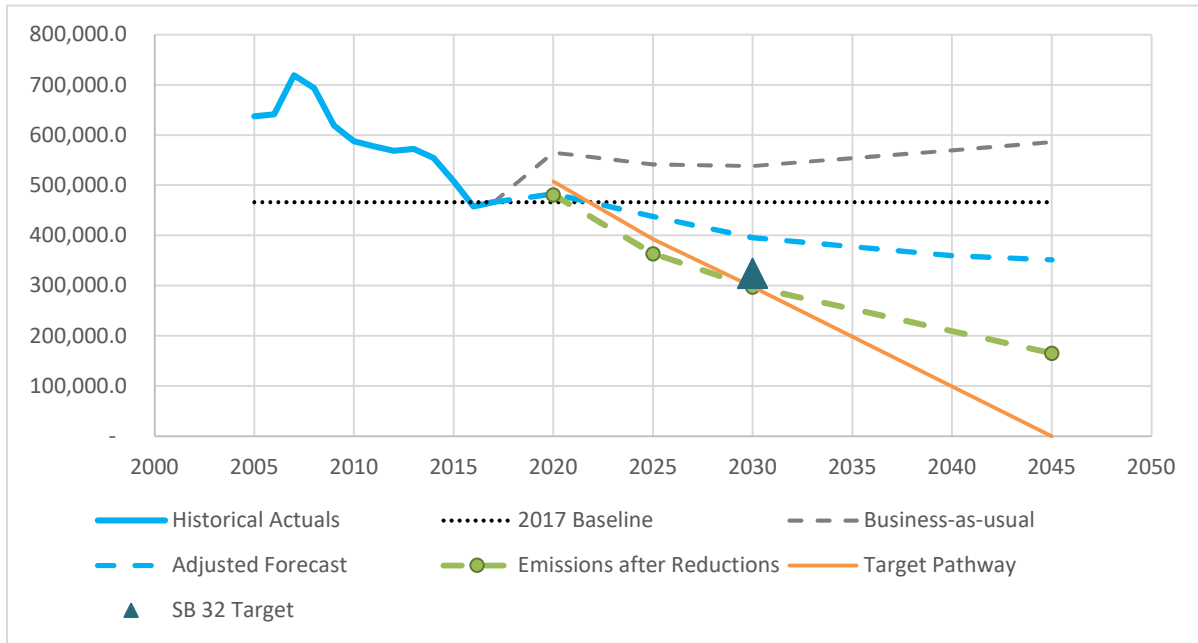
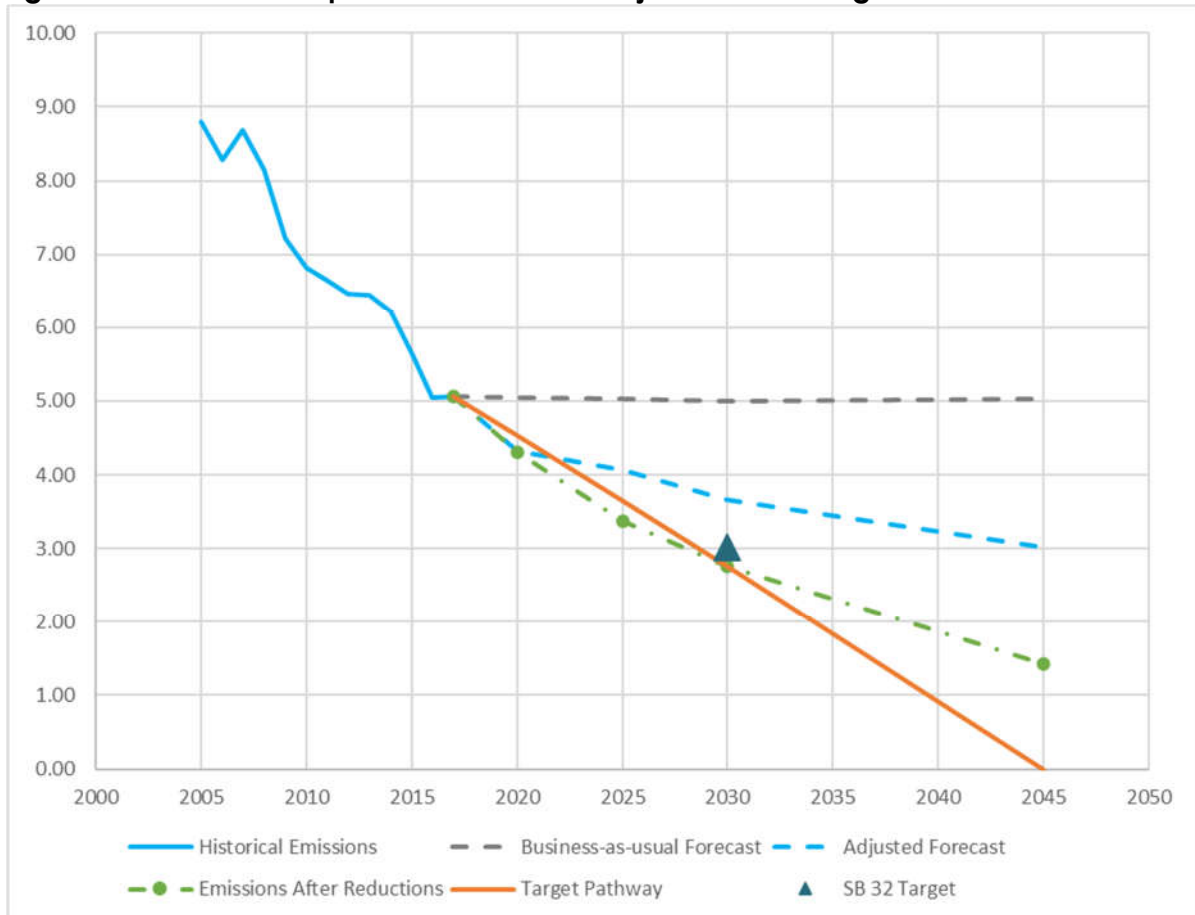


Figure 4 Chico Per Capita GHG Emissions Projections and Targets



Cumulative Projects Scenario

For purposes of CEQA cumulative impacts analysis of the Chico CAP Update, the cumulative projects scenario is buildout of the 2030 Chico General Plan . The Chico 2030 General Plan Land Use Element assumes a total of 21,495 housing units and 15,762,360 gross square feet of non-residential development by the horizon year in 2030.⁸ In addition, BCAG projects a Chico population of 107,712 persons by 2030.⁹

Required Approvals

City of Chico

Required approvals include:

- certification of the CAP Update Initial Study-Negative Declaration; and
- approval of the CAP Update.

Although individual plans or projects may be implemented later under the umbrella of the CAP Update, each individual plan or project would be subject to separate environmental review under CEQA.

Other Public Agencies

The City of Chico has sole approval authority over the CAP. There are no other public agencies whose approval is required.

⁸ Chico, City of. 2011. Chico 2030 General Plan Land Use Element. Available: <https://chico.ca.us/sites/main/files/file-attachments/3._land_use_element_updated.pdf?1593458892>. Accessed March 29, 2021.

⁹ Butte County Association of Governments (BCAG). 2019. Provisional Long-Term Regional Growth Forecasts 2018-2040. Available: <http://www.bcag.org/documents/demographics/pop_emp_projections/Growth_Forecasts_2018-2040_draft_v2.pdf>. Accessed May 26, 2021.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

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

Determination

Based on 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 to 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 “less than significant with mitigation incorporated” 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 potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Lead Agency Representative Signature

Date

Lead Agency Representative Printed Name

Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

1a, 1b, Would the project have a substantial adverse effect on a scenic vista? Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

The 2030 General Plan and its Environmental Impact Report (EIR) identify scenic resources within and nearby the City as the Sierra Nevada Foothills to the east of the City, agricultural landscapes, major creeks (e.g., Mud Creek, Sycamore Creek, Lindo Channel [Sandy Gulch], Big Chico Creek, Little Chico Creek, Butte Creek, Dead Horse Slough, and Comanche Creek), and Bidwell Park. Scenic vistas are available from within Bidwell Park and from publicly accessible roadways including Manzanita Avenue, Vallombrosa Avenue, East 8th Street, the Esplanade, Chico Canyon Road, Centennial Avenue, Humboldt Road, Bidwell Avenue, North Park Drive, and South Park Drive.^{10,11} The nearest designated California Scenic Highway is California State Route 49, which is approximately 42 miles southeast of Chico and is a north-south state highway that runs through many historic mining communities from the California Gold Rush. The nearest State Route eligible for designation as a

¹⁰ Chico, City of. 2011. Chico 2030 General Plan. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

¹¹ Chico City of. 2010. 2030 General Plan Update Draft Environmental Impact Report. Available: <https://chico.ca.us/sites/main/files/file-attachments/chicodeir_combined_noappendices.pdf?157775314>. Accessed March 29, 2021.

California Scenic Highway is a portion of State Route 70, located approximately 15 miles east of Chico in Plumas County.¹²

As a policy document, the CAP Update would not result in impacts related to scenic vistas and scenic highways. However, implementation of some CAP measures and actions may promote infrastructure development and redevelopment through policies and programs. CAP Measure E-4 and Actions E-4-1 and E-4-4 promote installation of solar PV systems and associated battery energy storage facilities to provide greener renewable electricity within the City. CAP Measure T-1 and Actions T-1-1, T-1-3, and T-1-5 and CAP Measure T-3 and Actions T-3-1 through T-3-3 involve the installation of new bicycle, pedestrian, and public transit infrastructure such as new bike lanes, bike sharing stations in the downtown area, and a new electric trolley service. CAP Measure T-2 and Actions T-2-1 through T-2-3 and Action T-2-5 encourage the installation of electric vehicle charging stations and supporting infrastructure. CAP Actions W-1-4 and W-1-5 may result in new or expanded organic waste recycling facilities. Additionally, CAP Measure S-1 and Actions S-1-1, S-1-2, and S-1-4 facilitate the expansion of greenspace and the planting of native shade trees within the City.

The CAP would promote infrastructure development and redevelopment that is complimentary to existing development and land uses. Though the implementation of the CAP may result in future development, CAP-related projects and actions, including those identified above, would be required to adhere to City development zoning and regulations, including Chico Municipal Code (CMC) Chapter 19.18, which establishes the City's Design Review process, and the City's Design Guidelines Manual.¹³ The Design Guidelines Manual establishes criteria for the aesthetic qualities of new development in the city including design, architecture, lighting, and signage.¹⁴ Compliance with the CMC and Design Guidelines Manual would ensure that potential future infrastructure development and redevelopment related to the CAP would be carefully integrated with the existing character of the, minimizing potential aesthetic impacts. In addition, CAP projects or actions would be reviewed for consistency with the General Plan policies related to scenic resources prior to approval. As such, the CAP would not result in adverse impacts related to scenic vistas within the City. Furthermore, given the distance from the nearest eligible and officially designated State scenic highways and the presence of intervening structures and topography, future site-specific CAP projects would not be visible from State Route 49 or State Route 70. Therefore, the CAP Update would not substantially damage scenic resources and historic buildings within a designated or eligible State scenic highway. Therefore, the CAP Update would result in ***less-than-significant impacts*** related to scenic vistas and ***no impact*** to scenic highways.

1c. 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?

The City of Chico is an urbanized area with the following applicable visual character/quality goals and policies from the City General Plan Land Use (LU), Community Design (CD), and Open Space and Environment Elements (OS):

¹² California Department of Transportation (Caltrans). 2021. California State Scenic Highway System Map. Available: <<https://www.arcgis.com/apps/webappviewer/index.html?id=2e921695c43643b1aaf7000dfcc19983>>. Accessed March 29, 2021.

¹³ Chico, City of. 2021. City Municipal Code Chapter 19.18. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1->. Accessed May 18, 2021.

¹⁴ Chico, City of. 2009. City of Chico Design Guidelines Manual. Available: <<https://chico.ca.us/general-plan-other-planning-documents>>. Accessed March 29, 2021.

- **LU 1.2 – Growth Boundaries/Limits:** Maintain long-term boundaries between urban and agricultural uses in the west and between urban uses and the foothills in the east, and limit expansion north and south to produce a more compact urban form.
- **LU 2.4 – Land Use Compatibility:** Promote land use compatibility through use restrictions, development standards, and special design considerations.
- **LU 2.5 – Open Space and Resource Conservation:** Protect open space areas with known sensitive resources.
- **LU 2.6 – Agricultural Buffers:** Require buffering for new urban uses along the City’s Sphere of Influence adjacent to commercial crop production. Landscaping, trails, gardens, solar arrays, and open space uses are permitted within the buffer. Design criteria for buffers are as follows:
 - A minimum 100-foot-wide physical separation, which may include roadways and creeks, between the agricultural use and any habitable structure.
 - Incorporate vegetation, as may be needed to provide a visual, noise, and air quality buffer.
- **LU 3.3 – Neighborhood Services:** Recognize existing neighborhoods and continue to facilitate the development of neighborhood plans in partnership with residents and property owners to preserve and enhance neighborhood character, identity, and livability.
- **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.
- **CD 2.4 – Context Sensitive Foothill Development:** Minimize disruption of viewsheds from foothill development, through the careful location and design of roads, buildings, lighting, landscaping and other infrastructure.
- **CD 3.1 – Lasting Design and Materials:** Promote architectural design that exhibits timeless character and is constructed with high quality materials.
- **CD 4.1 – Distinctive Character:** Reinforce the distinctive character of neighborhoods with design elements reflected in the streetscape, landmarks, public art, and natural amenities.
- **OS 2.4 – Visual Resources:** Preserve the foothills as a natural backdrop to the urban form.
- **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.
- **OS 5.1 – Urban/Rural Boundary:** Protect agriculture by maintaining the Greenline boundary between urban and rural uses.
- **OS 6.1 – Healthy Urban Forest:** Ensure the protection and management of the urban forest.¹⁵

The CAP Update would not involve land use or zoning changes but would instead promote sustainable infrastructure development and redevelopment through policies and programs. Implementation of some CAP measures related to transportation, renewable energy, and GHG sequestration may result in physical changes that could impact scenic resources. CAP Measure E-4 and Actions E-4-1 and E-4-4 promote installation of solar PV systems and associated battery energy storage facilities to provide renewable electricity within the City. CAP Measure T-1 and Actions T-1-

¹⁵ Chico, City of. 2011. Chico 2030 General Plan Land Use, Community Design, and Open Space and Environment Elements. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

1, T-1-3, and T-1-5 and CAP Measure T-3 and Actions T-3-1 through T-3-3 involve the installation of new bicycle, pedestrian, and public transit infrastructure such as new bike lanes and a new electric trolley service. CAP Measure T-2 and Actions T-2-1 through T-2-3 and Action T-2-5 encourage the installation of electric vehicle supporting infrastructure. Additionally, CAP Measure S-1 and Actions S-1-1, S-1-2, and S-1-4 facilitate the expansion of greenspace and the planting of native shade trees within the City.

Implementation of solar panels and battery storage, introduction of active transportation and public transit infrastructure, and planting additional trees may slightly change the scenic character of the City. However, future CAP-related projects would be located and designed to be complimentary to existing land uses and would be required to adhere to City development zoning and regulations, including the Chico Design Manual Guidelines, that seek to preserve the character of the City and minimize environmental impacts. In addition, CAP Update projects and actions would be reviewed for consistency with the General Plan policies highlighted above and other applicable regulatory land use actions prior to approval. Therefore, the CAP Update would not conflict with applicable zoning and other regulations governing scenic quality and would result in a ***less than significant impact***.

1d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

The CAP Update would not involve land use or zoning changes. Rather the CAP Update would promote sustainable infrastructure development and redevelopment that is complimentary to existing development and land uses. As a policy document, the CAP Update would not directly result in impacts related to light and glare. However, implementation of CAP measures E-4, T-1, T-2, T-3, and S-1 may promote new active transportation and public transit infrastructure, solar panels, and tree planting throughout the City, as discussed in *Responses 1a., 1b., and 1c.,* above.

CAP Action E-4-4 includes ten potential programs to increase renewable energy generation, including expanding the existing solar array at the Water Treatment Plant and installing solar panels at municipal facilities. Solar panels have the potential to result in new sources of glare within the City if not thoughtfully designed and located. The design and location of proposed solar infrastructure would be complimentary to existing development in the City, such as the expansion of existing solar arrays and addition of small-scale rooftop solar panels, in order to reduce potential glare impacts. Furthermore, CAP projects and actions would be reviewed for consistency with the CMC, including Section 19.60.050, which establishes exterior lighting standards, and the Design Guidelines Manual.¹⁶ In addition, CAP projects or actions would be reviewed for consistency with the General Plan and other applicable regulatory land use actions prior to approval. Compliance with these regulations would minimize environmental impacts related to light and glare by limiting the use of highly reflective materials and requiring the shielding of exterior lighting. Thus, the CAP would result in a ***less-than-significant impact*** related to light and glare.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. Cumulative impacts related to scenic resources, visual character, and increased light and glare would generally be site-specific, and cumulative projects are not anticipated to contribute to cumulative aesthetic

¹⁶ Chico, City of. 2021. City Municipal Code Section 19.16.050. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

impacts with adherence to General Plan policies and the Municipal Code. Because of the developed nature of Chico, future infrastructure projects under the CAP, in combination with other cumulative projects anticipated under General Plan buildout, would not adversely impact the visual character of the City. In addition, future development in the City would be required to comply with the City's Design Review process and be reviewed against applicable General Plan policies and City's design standards for design quality and compatibility with adjacent land uses. Therefore, implementation of the CAP Update would result in a ***less-than-significant cumulative impact*** related to aesthetics.

2 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 maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

2a, 2b, 2e. *Would the project:*

- *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*
- *Conflict with existing zoning for agricultural use or a Williamson Act contract?*
- *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use?*

The City of Chico is characterized primarily by urban and suburban development; however, the City does contain some areas of active agricultural use. The largest agricultural land use within the City is the Vanella Orchard, which is located on 8th Avenue. There are also several small agricultural

operations and orchards throughout the City.¹⁷ According to the Farmland Mapping and Monitoring Program, the majority of land within the City is classified as urban and built-up land, with five scattered areas mapped as Prime Farmland or Unique Farmland.¹⁸ There are no Williamson Act contracts within the City.¹⁹ Areas of unincorporated Butte County surrounding the City, particularly to the west of the City, are largely agricultural.¹⁹

The majority of CAP Update measures focus on electrification of buildings, improving active transportation, zero emission vehicle and public transit infrastructure, increasing organic waste diversion, and increasing urban greenspace and trees. These measures would not involve projects or policies that would result in impacts related to conversion or loss of farmland. CAP Measure E-4 seeks to increase generation and storage of local renewable energy. There is the potential for new renewable energy incentives to result if solar panels are placed on agricultural lands. However, the use of solar panels on agricultural land would not preclude continued or future agricultural use and productivity of sites. Furthermore, the CAP Update includes Measure T-5, which supports infill development and the reduction of urban sprawl, which could help to preserve existing agricultural lands within the City and within the agricultural areas adjacent to the City. Therefore, the CAP Update would result in a **less-than-significant impact** related to degradation of agricultural resources or conversion of agricultural land to non-agriculture uses, nor would there be a conflict with existing zoning or general plan land use designations.

2c, 2d, 2e. 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))?*
- *Result in the loss of forest land or conversion of forest land to non-forest use?*
- *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of forest land to non-forest use?*

The City contains approximately 265 acres of natural areas that are not developed as well as a number of parks and greenways that contain trees.^{20,19} However, there are no lands zoned for Timberland Production within the City.^{21,22} The CMC Chapter 16.66, Tree Preservation Regulations, establishes policies, regulations and standards necessary to ensure tree protection within the City.²³ In addition, the General Plan contains a number of goals, policies, and actions such as Goal OS-6,

¹⁷ Chico, City of. 2010. 2030 General Plan Update Draft Environmental Impact Report. Available: <https://chico.ca.us/sites/main/files/file-attachments/chicodeir_combined_noappendices.pdf?1577755314>. Accessed March 29, 2021.

¹⁸ California Department of Conservation. 2021. California Important Farmland Finder. Available: <<https://maps.conservation.ca.gov/dlrp/ciff/>>. Accessed March 29, 2021.

¹⁹ Chico, City of. 2010. 2030 General Plan Update Draft Environmental Impact Report. Available: <https://chico.ca.us/sites/main/files/file-attachments/chicodeir_combined_noappendices.pdf?1577755314>. Accessed March 29, 2021.

²⁰ Chico, City of. 2019. Park and Recreation Master Plan Update. April 21, 2019. Available: <https://issuu.com/playcard/docs/master-plan_packaged-final-issuu>. Accessed March 30, 2021.

²¹ Chico, City of. 2020. Zoning Map. Available: <https://chico.ca.us/sites/main/files/file-attachments/citywebmap_zoning20170901aug2017.pdf?1594054713>. Accessed March 30, 2021.

²² California Department of Fish and Wildlife. n.d. Forests and Timberlands in the California Department of Fish and Wildlife Region 2. Available: <<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=111178&inline>>. Accessed March 30, 2021.

²³ Chico, City of. 2021. City Municipal Code Chapter 16.66. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

provide a healthy and robust urban forest, that illustrate the City's commitment to managing and preserving Chico's urban forest.²⁴ The CAP Update aligns with the General Plan by including measures and actions that emphasize the maintenance and expansion of the urban forest and greenspaces within Chico, as well as the control of suburban sprawl that could encroach upon agricultural and forest lands surrounding the City. CAP Measure S-1 and Actions S-1-1 through S-1-4 facilitate the implementation of an urban forest revitalization program and increasing greenspace and native trees throughout the City.

As such, the CAP Update would increase planting of trees within the City and be consistent with the City's Tree Preservation Regulations. Furthermore, the CAP Update seeks to increase trees within the City for the purposes of carbon sequestration and shading. The CAP Update does not include measures that would result in the loss of forest land or the conversion of forest land to non-forest use, nor would it conflict with or cause the rezoning of forest, timber land, or Timberland Production areas. Therefore, the CAP would result in a **no impact** related to degradation of forestry resources or conversion of forest land to non-forest uses, nor would there be a conflict with existing zoning or general plan land use designations.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. As the City's population grows and development intensifies in the future, in combination with other cumulative projects anticipated under General Plan buildout, CAP Measure T-5 would guide the City to direct growth to infill areas, reducing suburban sprawl that could impact agriculture and forestry resources within the surrounding unincorporated Butte County. In addition, CAP Measure S-1 and Actions S-1-1 through S-1-4 would ensure that the urban forest is maintained and that additional trees are planted throughout the City. As discussed above, the CAP Update would not include any measures or actions that would significantly impact agricultural or forest resources. In addition, the CAP would not involve land use or zoning changes that could result in cumulative impacts related to conversion or loss of farmland or forest land. Therefore, implementation of the CAP Update would result in **no cumulative impact** related to agricultural and forestry resources.

²⁴ Chico, City of. 2011. Chico 2030 General Plan Open Space and Environment Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

3 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

3a. Would the project conflict with or obstruct implementation of the applicable air quality plan?

The federal Clean Air Act (CAA) governs air quality in the United States and is administered by the U.S. EPA at the federal level. Air quality in California is also governed by regulations under the California CAA, which is administered by CARB at the State level. At the regional and local levels, local air districts typically administer the federal and California CAA. As part of implementing the federal and California CAA, the U.S. EPA and CARB have established ambient air quality standards for major pollutants at thresholds intended to protect public health. Chico is located within the Sacramento Valley Air Basin (the Air Basin), which includes the counties of Butte, Colusa, Glenn, Placer, Sacramento, Shasta, Solano, Sutter, Tehama, Yolo, Yuba. The Air Basin is under the jurisdiction of the Butte County Air Quality Management District (BCAQMD). As the local air quality management agency, BCAQMD is required to monitor air pollutant levels to ensure that State and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards. Depending on whether or not the standards are met or exceeded, the Air Basin is classified as being in “attainment” or “nonattainment.” Under State law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-attainment. BCAQMD is in non-attainment for the State and federal ozone standards, the State PM_{2.5} (particulate matter up to 2.5 microns in size) standards, and the State PM₁₀ (particulate matter up to 10 microns in size) standards and is required to prepare a plan for improvement.²⁵ The sources, health effects, and typical controls associated with criteria pollutants are described in Appendix A.

Air districts in the northern portion of the Air Basin (encompassing Shasta, Tehama, Glen, Colusa, Butte, and Feather River air districts), prepared and adopted a uniform Air Quality Attainment Plan

²⁵ Butte County Air Quality Management District (BCAQMD). 2021. Air Quality Standards and Air Pollutants. Available: <<https://bcaqmd.org/planning/air-quality-standards-air-pollutants/>>. Accessed April 14, 2021.

(AQAP) for the purpose of achieving and maintaining healthful air quality throughout the northern portion of the Air Basin. In December 2018, BCAQMD adopted the 2018 Triennial Air Quality Attainment Plan (2018 AQAP), which assesses the progress made in implementing the previous triennial update and proposes modifications to the strategies necessary to attain the California Ambient Air Quality Standards (CAAQS) by the earliest practicable date.²⁶ In addition, BCAQMD maintains a PM_{2.5} Nonattainment Area Redesignation Request and Maintenance Plan. The purpose of this plan is to demonstrate that the planning area has met requirements established in the CAA, to request redesignation to attainment for the 24-hour PM_{2.5} National Ambient Air Quality Standards (NAAQS), and to demonstrate how the area will maintain the NAAQS for the next 10 years.²⁷

The Federal Clean Air Act Amendments (CAAA) mandate that states submit and implement a State Implementation Plan (SIP) for areas not meeting air quality standards. The SIP includes pollution control measures to demonstrate how the standards will be met through those measures. The SIP is established by incorporating measures established during the preparation of Air Quality Management Plans (AQMP) and adopted rules and regulations by each local Air Pollution Control District (APCD) and AQMD, which are submitted for approval to CARB and the U.S. EPA.²⁸ The goal of an AQMP is to reduce pollutant concentrations below the NAAQS through the implementation of air pollutant emissions controls.

The CAP Update would not involve land use or zoning changes but would rather promote sustainable infrastructure development and redevelopment. CAP Update measures and actions focus on electrification of buildings, increasing local renewable energy infrastructure and providing carbon neutral electricity, improving active transportation, zero emission vehicle and public transit infrastructure, increasing organic waste diversion, and increasing urban greenspace and trees. Implementation of proposed measures, such as those aimed at reducing VMT and reducing natural gas use, would have co-benefits to air quality within the Air Basin, would help Chico meet applicable air quality plan goals, and would generally reduce sensitive receptor exposure to pollutant concentrations. Although the purpose and intended effect of the CAP Update is to reduce GHG emissions generated in the City to help reduce the effects of climate change, many of its actions would also reduce criteria pollutant (i.e., air quality) emissions. CAP Measures E-2 and E-3 involve increased energy efficiency and building electrification as part of residential and non-residential land use operations, CAP Measures E-1 and E-4 prioritize decarbonizing electricity within the City by 2025 and increasing the generation of local renewable energy, and CAP Measures T-1 through T-5 seek to reduce VMT in the City, improve active transportation and public transit facilities, and increase the adoption of EVs. These energy- and transportation-related measures would reduce air quality emissions as well as GHG emissions. Therefore, the CAP is consistent with the 2018 AQAP and would have ***no impact*** related to a conflict with or obstruction of the applicable air quality plan.

3b. 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

²⁶ Sacramento Valley Air Quality Engineering and Enforcement Professionals (SVAQEPP). 2018. Northern Sacramento Valley Planning Area 2018 Triennial Air Quality Attainment Plan. Available: <<http://www.airquality.org/SVBAPCC/Documents/2018%20Triennial%20Report.pdf>>. Accessed April 14, 2021.

²⁷ Butte County Air Quality Management District (BCAQMD). 2017. Chico, CA/Butte County PM_{2.5} Nonattainment Area Redesignation Request and Maintenance Plan. October 2017. Available: <<http://bcaqmd.org/wp-content/uploads/Butte-County-PM2.5-Redesignation-Request-and-Maintenance-Plan.pdf>>. Accessed April 14, 2021.

²⁸ CARB. 2017. Proposed 2016 State Strategy for the State Implementation Plan. Available: <<https://ww3.arb.ca.gov/planning/sip/2016sip/2016sip.htm>>. Accessed April 14, 2021.

quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

The CAP would not involve land use or zoning changes but would instead promote sustainable infrastructure development and redevelopment. As a policy document, the CAP would not result in impacts related to criteria pollutants. However, implementation of the following CAP measures may promote construction activities that would temporarily generate criteria pollutants during the construction phase.

CAP Actions E-3-2, E-3-3, E-3-7, and E-4-1 through E-4-4 promote building electrification of existing buildings and installation of solar PV systems and battery storage facilities to provide greener renewable electricity within the City. CAP Actions T-1-1, T-1-3 through T-1-5, T-3-1, T-3-5, and T-3-8 support the installation of new bicycle, pedestrian, and public transit infrastructure throughout the City to increase the use of public transit and active transportation. CAP Actions T-2-1 through T-2-3, T-2-5, and T-2-8 encourage the installation of electric vehicle charging stations and supporting infrastructure. CAP Actions W-1-1 and W-1-3 through W-1-5 relate to increasing organic waste diversion and facility capacities for organic waste collection. Additionally, CAP Actions T-4-3, S-1-1, and S-1-2 encourage increasing parklet, greenspace, and the planting of urban trees within the community. Construction-related air quality impacts are generally associated with fugitive dust (PM₁₀ and PM_{2.5}) and exhaust emissions from heavy construction vehicles and soil hauling trucks, in addition to reactive organic gases (ROG) that would be released during the drying phase upon application of architectural coatings. However, implementation of proposed measures would not include large-scale construction within Chico and would involve temporary and short-term criteria pollutant emissions. As such, it would result in low-level criteria pollutant emissions and negligible impacts to air quality. CAP projects or actions would also be reviewed for consistency with BCAQMD air quality regulations and other applicable local, State, and federal regulations once project details and locations are known. Thus, the construction required for implementation of the CAP would result in a less-than-significant impact related to net increase of criteria pollutants.

With respect to operational emissions, many CAP measures and actions would have the secondary benefit of reducing criteria pollutant emissions, such as CAP measures aiming to increase building energy efficiency, promote electric vehicles, reduce on-road gasoline fuel use, and reduce VMT. Implementation of CAP measures would be beneficial by helping Chico meet applicable air quality plan goals. In addition, future CAP projects would be required to comply with local, regional, and State air quality regulations. Therefore, the CAP would result in a **less-than-significant impact** related to criteria pollutant emissions.

3c. Would the project expose sensitive receptors to substantial pollutant concentrations?

Implementation of the CAP actions described in *Response 3b.*, above, promote infrastructure development and redevelopment that may result in temporary construction activities. Construction-related air quality impacts are generally associated with fugitive dust (PM₁₀ and PM_{2.5}) and exhaust emissions from heavy construction vehicles and soil hauling trucks, in addition to ROG that would be released during the drying phase upon application of architectural coatings. However, implementation of proposed CAP measures would not include large-scale construction, and construction-related emissions would be temporary. As such, implementation of the CAP Update would result in low-level toxic air contaminant emissions associated with construction.

While the CAP could result in construction-related impacts related to toxic air contaminants and exposure to sensitive receptors, CAP projects or actions would be reviewed for consistency with BCAQMD air quality regulations and other applicable local, State, and federal regulations once

project details and locations are known to ensure compliance. Thus, the construction associated with implementation of the CAP Update would not result in substantial emissions of toxic air contaminants and exposure to sensitive receptors. No operational toxic air contaminant emissions are anticipated with implementation of the CAP measures and actions. Therefore, the CAP would have a ***less-than-significant impact*** related to exposure of sensitive receptors to toxic air contaminants.

3d. Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The CARB 2005 *Air Quality Land Use Handbook: A Community Health Perspective* identifies land uses associated with odor complaints which include: sewage treatment plants, landfills, recycling facilities, waste transfer stations, petroleum refineries, biomass operations, auto body shops, coating operations, fiberglass manufacturing, foundries, rendering plants, and livestock operations.²⁹ CAP Measure W-1 promotes increasing organic waste diversion to achieve a 75 percent reduction in organic waste by 2025. As such, the CAP could result in minor odors related to organic waste processing. However, green waste collection bins are not identified on the list of “Sources of Odor Complaints” (Table 1-4) as provided in the *CARB Air Quality Land Use Handbook* and would not be anticipated to result in other emissions, such as those leading to odors, adversely affecting a substantial number of people.²⁹ In addition, the design and location of future projects related to new or expanded organic waste collection and processing facilities would be complimentary to existing development in the City would be reviewed for potential odor impacts to ensure that projects implemented in accordance with the CAP Update would not adversely affect a substantial number of people. Therefore, the CAP Update would not facilitate development that could create adverse odors, and there would be a ***less-than-significant impact*** related to odors exposure.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. The CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, could exceed applicable BCAQMD thresholds or be inconsistent with the 2018 AQAP. However, implementation of the CAP Update would have a less-than-significant contribution related to potential cumulative air quality impacts within the air basin and on sensitive receptors within the City of Chico, given that the CAP Update would result in Citywide reduction of GHG emissions, energy use, single-occupancy vehicle travel, and waste generation. As such, implementation of the CAP Update would not result in adverse impacts related to contribution of criteria pollutants to the air basin and exposure of sensitive receptors to toxic air contaminants. Therefore, implementation of the CAP Update would result in a ***less-than-significant cumulative impact*** related to air quality.

²⁹ California Air Resources Control Board (CARB). 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. Available: <<https://ww3.arb.ca.gov/ch/handbook.pdf>>. Accessed July 24, 2020.

4 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 Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or the U.S. Fish and Wildlife Service?*

Chico is a primarily urbanized community with neighborhood parks, community parks, and recreational and open spaces incorporated throughout the City. The City's Municipal Code Titles 12 and 12R and Chapter 16.66, as well as the General Plan Parks, Public Facilities, and Services Element and General Plan Open Space and Environment Element incorporate goals and policies to protect biological resources, such as plant habitats, trees, wildlife habitats, and rare and endangered species in the City.^{30,31} The City contains critical habitat for Butte County meadowfoam (*Limnanthes floccosa ssp. californica*) plant and vernal pool tadpole shrimp (*Lepidurus packardii*) and vernal pool fairy shrimp (*Branchinecta lynchi*) in undeveloped areas in the northern and eastern portions of the City, near the City's boundaries with unincorporated Butte County.³²

The CAP Update would not involve land use or zoning changes and would instead promote sustainable infrastructure development and redevelopment. The CAP Update measures would not conflict with the Municipal Code or objectives and policies of the General Plan related to wildlife but would rather be consistent with and promote those plans. CAP Update measures would generally apply to the urbanized areas of the City, with little application to parks, open spaces area, or the undeveloped portions of the City where sensitive habitat and related species may be present. In addition, CAP Measure T-5 would support infill development and the reduction of urban sprawl, which would aid in conserving the undeveloped land present near the boundaries of the City that serve as critical habitat for Butte County Meadowfoam, vernal pool tadpole shrimp, and vernal pool fairy shrimp. In addition, CAP Measure S-1 and Action T-4-3 facilitate the implementation of an urban forest revitalization program and increased greenspace, parklets, and native trees throughout the City that could serve as additional habitat for special status species and migratory and nesting birds. As such, the CAP would not have a substantial adverse effect on candidate, threatened, or endangered wildlife species either directly through individual take or indirectly through species habitat modification.

As a policy document, the CAP Update would not directly result in impacts related to wildlife species of special status. However, implementation of some CAP measures may promote infrastructure development within the urbanized portions of the City and could result in impacts to species through construction activities. CAP Measure E-4 would increase the production and storage of local renewable energy by encouraging the installation of new solar panel and battery energy storage facilities throughout the City. CAP Measure W-1 relates to increasing organic waste diversion and facility capacities for organic waste collection and could result in the construction of new or expanded solid waste processing facilities. Construction has the potential to disturb nesting habitat for birds and raptors protected under Sections 3503, 3503.5, and 3513 of the California Fish and Game Code (CFGC) and under the Migratory Bird Treaty Act (MBTA). However, construction activities for future CAP projects would be required to comply with the provisions of the MBTA and CFGC Sections 3503, 3503.5, and 3513 in order to avoid impacts to protected birds and would be reviewed for consistency with City, State, and Federal policies related to protected species. As such,

³⁰ Chico, City of. 2021. City Municipal Code Title 12 and 12R. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-1>. Accessed May 18, 2021.

³¹ Chico, City of. 2011. General Plan Parks, Public Facilities, and Services and Open Space and Environment Elements. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed May 18, 2021.

³² U.S. Fish and Wildlife Service (USFWS). 2021. Critical Habitat for Threatened and Endangered Species Map. Available: <<https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>>. Accessed April 14, 2021.

the CAP Update would not have a substantial adverse effect on special-status wildlife species. Therefore, the CAP would result in a **less-than-significant impact** related to special-status wildlife species.

4b, 4c. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community (such as State or federally protected wetlands, including, but not limited to, marsh, vernal pool, coastal, etc.) identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service through direct removal, filling, hydrological interruption, or other means?

The CAP Update would not involve land use or zoning changes but would instead promote sustainable infrastructure development and redevelopment within urbanized areas of the City. According to the General Plan Open Space and Environment Element, special habitat resources in Chico include riparian woodlands, permanent wetlands, vernal pools, and rivers and streams. The General Plan contains Goal OS-1 and its related policies and actions to conserve these sensitive habitats and native species that rely on them, as well as Goal OS-2 to preserve a network of protected open space and Creekside greenways, including riparian corridors and wetlands.³³

The CAP Update measures would generally apply to the urbanized areas of the City, with little application to parks, open spaces area, or other locations where riparian and wetland habitat is located. CAP Measure S-1 and Action T-4-3 facilitate the implementation of an urban forest revitalization program and increased greenspace, parklets, and native trees throughout the City, which aligns with General Plan goals related to habitat and greenspace conservation. Likewise, CAP Measure T-5 would support infill development and the reduction of urban sprawl, which would aid in conserving undeveloped sensitive habitat areas in the City. Though some CAP-related projects, such as those that involve the installation of new solar panels and battery energy storage facilities and expansion of organic waste processing capacity, could result in the construction of new facilities, it is unlikely that future facilities would be planned for areas with sensitive habitat. Future CAP-related projects would be required to adhere to City development regulations and General Plan policies, including the City of Chico Tree Preservation Ordinance, to retain urban forestry and minimize environmental impacts. In addition, the location and details of future CAP projects would be reviewed for consistency with applicable local, regional, and State regulations related to sensitive habitat prior to approval. As such, the CAP Update would not have a substantial adverse effect on riparian habitat or sensitive natural community, such as wetlands. Therefore, the CAP would have a **less-than-significant impact** related to sensitive natural plant communities.

4d. 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?

The CAP Update would not involve land use or zoning changes but would instead promote sustainable infrastructure development and redevelopment within urbanized portions of the City. As a policy document, the CAP Update would not result in direct impacts related to interference with species movement or use of wildlife nursery sites. However, implementation of CAP measures such as E-4, T-1, T-3, and W-1 related to improving active transportation facilities, renewable energy production and storage, and organic waste processing may include infrastructure development that could potentially disturb habitat areas. CAP projects would be required to adhere to City development regulations and General Plan policies, including the City of Chico Tree Preservation

³³ Chico, City of. 2011. General Plan Open Space and Environment Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed May 18, 2021.

Ordinance, and would be reviewed for consistency with applicable local, regional, and State regulations to retain urban forestry and open space and minimize environmental impacts. In addition, CAP Measure S-1 and Action T-4-3 facilitate implementation of an urban forest revitalization program and increased greenspace, parklets, and native trees throughout the City, while Measure T-5 would support infill development and the reduction of urban sprawl. These measures and actions would aid in conserving habitat areas and habitat connectivity in and near the City. Furthermore, the CAP measures would generally apply to the urbanized areas of the City with little application to parks, open spaces area, or other locations where wildlife corridors or native wildlife nursery sites may be present. Therefore, the CAP would result in a **less-than-significant impact** related to interference with species movement or wildlife nursery use.

4e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Chico is a primarily urbanized community with neighborhood parks, community parks, and recreational spaces throughout the City. The General Plan Parks, Public Facilities, and Services Element and General Plan Open Space and Environment Element incorporate goals and policies resource protection in the City.³⁴ Additionally, the CMC Chapter 16.66 was established to preserve trees and enhance the ecological benefit to the community by providing for the regulation of planting, management, maintenance, preservation and, where necessary, removal of trees.³⁵

The CAP Update would not involve land use or zoning changes but would promote sustainable infrastructure development and redevelopment within the urbanized portion of the City. The purpose and intended effect of the CAP is to reduce GHG emissions generated in the City to help reduce the effects of climate change. Implementation of proposed measures would be beneficial by helping Chico meet applicable local policies and ordinances for protecting biological resources, including Measure S-1 which provides for the planting of additional urban trees. The CAP would not conflict with or obstruct implementation of the applicable policies for preserving biological resources and would not affect the City's ability to attain goals and policies that protect biological resources. Therefore, the CAP would result in **no impact** related to consistency with local biological resources protection policies.

4f. 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?

The City is not currently subject to a Habitat Conservation Plan or Natural Community Conservation Plan, although the Butte Regional Conservation Plan is currently in preparation and would include the City of Chico upon its final adoption.³⁶ The CMC and General Plan Parks, Public Facilities, and Services Element include an inventory of open space resources as well as goals and policies to preserve natural resources, such as plant and wildlife habitats in the City. The CAP Update would not facilitate specific development projects, nor would it add or enable new development that would conflict with the adopted Municipal Code, General Plan, or with the Butte Regional Conservation Plan once it is approved. Rather, the CAP Update prioritizes halting urban sprawl and

³⁴ Chico, City of. 2011. General Plan Parks, Public Facilities, and Services and Open Space and Environment Elements. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed May 18, 2021.

³⁵ Chico, City of. 2021. City Municipal Code Chapter 16.66. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

³⁶ California Department of Fish and Wildlife (CDFW). 2021. Natural Community Conservation Plan Summaries. Available: <<https://wildlife.ca.gov/Conservation/Planning/NCCP/Plans>>. Accessed April 14, 2021.

the preservation of greenspace and trees in order to reduce GHG emissions and related impacts to the environment. Therefore, the CAP Update would have **no impact** related to consistency with an adopted habitat or natural community conservation plan.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. Implementation of CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, Big Chico Creek, Little Chico Creek, and Lindo Channel could result in impacts to biological resources during infrastructure and building construction. However, as described in *Responses 4a. through 4f.*, above, infrastructure development or redevelopment resulting from implementation of the CAP Update would be required to comply with applicable General Plan policies and State and federal regulatory requirements regarding avoidance of special wildlife species and habitat. In addition, the CAP Update contains measures that prioritize the preservation of open space and trees. Therefore, implementation of the CAP Update would result in a **less-than-significant cumulative impact** related to biological resources.

5 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

5a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

The City of Chico (City) has identified 265 historic-aged properties potentially eligible for listing in the National Register of Historic Places (NRHP) as individual resources or contributors to districts, and four California Historical Landmarks.^{37,38} The CAP would not involve land use or zoning changes but would promote infrastructure development and redevelopment that would be complimentary to existing development. CAP projects would be required to comply with General Plan Cultural Resources and Historic Preservation Policy, as outlined in the Cultural Resources and Historic Preservation Element.³⁹ This policy requires the identification and protection of sites and structures within the city of Chico of architectural, historical, archaeological, and cultural significance. This includes sites, structures, and areas that are associated with a historic event, activity, or persons that contribute to the historic character of districts, neighborhoods, landmarks, historic structures, and artifacts. To maintain less than significant adverse impacts, CAP projects and actions should be reviewed for compliance with applicable local, regional, and State regulations regarding cultural resources and the City’s General Plan Cultural Resources and Historic Preservation Policy to avoid impacts related to unknown archaeological resources.³⁸ With these measures, the CAP would result in a **less-than-significant impact** related to historical resources.

5b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

The City has not listed known archeological sites within its City limits. However, the City is highly sensitive for prehistoric and historic-era archaeological deposits.³⁸ Hence, there is a possibility for

³⁷ Chico, City of. 1983. Chico Historic Resources Inventory. Available: <<https://chico.ca.us/post/historic-resources-inventory>>. Accessed April 27, 2021.

³⁸ Office of Historic Preservation. 2021. California Historical Landmarks, Butte County. Available: <https://ohp.parks.ca.gov/?page_id=21391>. Accessed April 18, 2021.

³⁹ Chico, City of. 2011. Chico 2030 General Plan Cultural Resources and Historic Preservation Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

sites not previously recorded to be present in areas designated for CAP development and/or redevelopment. In particular, CAP Measures E-4, T-1, T2, T-3, T-5 and S-1 would result in small-scale construction projects that may expose previously undiscovered archaeological resources during ground disturbing activities. The CAP projects would be located and designed strategically to reduce ground disturbance to the maximum extent possible. In addition, CAP projects and actions would be reviewed for consistency with applicable local, regional, and State archeological regulations prior to final siting and construction and would be required to implement BMPs in accordance with the General Plan Cultural Resources and Historic Preservation Element and City Best Management Practices Manual policies.^{40,41} These policies include a standard requirement during all ground disturbing activities that if potential archaeological resources are unearthed, construction must be halted, the Planning Director must be contacted, and a qualified professional must be hired to investigate and make recommendations. With compliance with the required measures and policies contained in the General Plan and City Best Management Practices Manual, the CAP Update would result in a ***less-than-significant impact*** related to archaeological resources.

5c. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

There are four formal cemeteries with human interments within the City. Considering there are four known cemeteries, there is a possibility of encountering unknown buried human remains throughout the City. Implementation of the following CAP measures may promote infrastructure development and redevelopment. In particular, CAP Measure E-4, Measures T-1, T2, and T-3, Measure T-5 and Measure S-1 would all result in ground disturbing activities that could result in an impact on unknown human burial sites. To maintain less than significant adverse impacts, CAP projects and actions should be reviewed for compliance with applicable local, regional, and State regulations regarding cultural resources and the City's General Plan Cultural Resources and Historic Preservation Element to avoid impacts related to unknown human interments.³⁹ In addition, CAP projects would be required to comply with state coroner requirements related to burial findings, including assessment and mitigation incorporation once project details and locations are known. With these measures, the CAP Update would result in a ***less-than-significant impact*** related to human remains.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. Implementation of the CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, would include infrastructure and building developments that could have an impact on cultural resources during construction. Impacts to historic and archaeological resources are generally site-specific. Additionally, there is a possibility of encountering buried archaeological deposits and human remains throughout the City. Accordingly, potential impacts associated with cumulative developments would be addressed on a case-by-case basis. In addition, future projects in the City, including those associated with implementation of the CAP, would be required to comply with the City's General Plan Cultural Resources and Historic Preservation Element Policy that requires the identification and protection of sites and structures of architectural, historical, archaeological, and cultural significance, to avoid impacts related to cultural resources. Therefore,

⁴⁰ Chico, City of. 2011. Chico 2030 General Plan Cultural Resources and Historic Preservation Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

⁴¹ Chico, City of. 1998. Best Management Practices Manual. Available: <https://chico.ca.us/sites/main/files/file-attachments/complete_manual.pdf?1574726222>. Accessed May 26, 2021.

implementation of the CAP Update would result in a ***less-than-significant cumulative impact*** related to cultural resources.

6 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

6a. 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?

California is one of the lowest per-capita energy users in the United States, ranked 46th in the nation, due to its energy efficiency programs and mild climate.⁴² California consumed 279,402 gigawatt-hours (GWh) of electricity and 2,154,030 million cubic feet of natural gas in 2019.^{43,44} The single largest end-use sector for energy consumption in California is transportation (39.1 percent), followed by industry (23.5 percent), commercial (19.2 percent), and residential (18.3 percent).⁴² Adopted in 2018, SB 100 accelerates the State’s Renewable Portfolio Standards Program, codified in the Public Utilities Act, by requiring electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

The City of Chico has demonstrated its commitment to energy efficiency and renewable energy through many efforts, as described in the Sustainability and GHG Reduction Efforts Setting section above. The City has adopted the California Green Building Standards Code, per CMC Title 16R, that requires efficiency measures to reduce energy use, and provide energy reduction benefits. The City has also completed a communitywide GHG emissions inventory for 2017, which is summarized in Table 1.⁴⁵ Gasoline and diesel sales were responsible for the highest emissions of GHGs within the

⁴² United States Energy Information Administration (USEIA). 2021. “California - Profile Overview.” Last modified: February 18, 2021. Available: <<https://www.eia.gov/state/?sid=CA>> Accessed April 14, 2021.

⁴³ California Energy Commission (CEC). 2019. Electricity Consumption by County. Available: <<http://www.ecdms.energy.ca.gov/electbycounty.aspx>>. Accessed March 30, 2021.

⁴⁴ United States Energy Information Administration (USEIA). 2021. Natural Gas: Natural Gas Consumption by End Use. February 26, 2021. Available: <https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_sca_a.htm>. Accessed March 30, 2021.

⁴⁵ Chico, City of. 2021. City Municipal Code Chapter 16R Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

Chico community in 2017. According to the California Energy Commission (CEC), Butte County consumed approximately 1,396 GWh of electricity and 39 million therms of natural gas in 2019.^{46,47}

The CAP Update is a policy document containing climate action measures to reduce Citywide GHG emissions. The CAP Update would encourage energy efficiency in existing residential, commercial, and municipal building stock through new policies and educational campaigns as well as new requirements for proposed new buildings. The CAP Update would also incentivize increased renewable energy production within the City. Additionally, the CAP Update attempts to reduce transportation-related energy consumption by increasing active transportation and public transit use and reducing VMT. CAP Measures E-2 and E-3 seek to decrease natural gas consumption in new and existing buildings by requiring electrification, while Measure E-4 encourages the production and storage of local renewable energy. Additionally, CAP Measure E-1 would implement electricity policy changes that call for use of electricity from clean, renewable sources and would automatically enroll the community in a 100 percent renewable energy option by 2024. CAP Measures T-1 through T-5 would provide improvements to the active transportation, public transit and EV infrastructure of the City, as well as encourage infill development, to reduce energy consumption and GHG emissions from the transportation sector. CAP Measure W-1 relates to increasing organic waste diversion and facility capacities for organic waste collection. Additionally, CAP Action T-4-3 and Measure S-1 encourage increasing parklet, greenspace, and the planting of urban trees within the community.

Implementation of solar PV, transportation, and organic waste processing infrastructure, as well as new parklets and tree planting, would require small-scale construction. However, energy use for the construction of such projects would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which would minimize unnecessary fuel consumption. Construction equipment would be subject to the United States Environmental Protection Agency (USEPA) Construction Equipment Fuel Efficiency Standard, which would also minimize inefficient, wasteful, or unnecessary fuel consumption. Furthermore, per applicable regulatory requirements such as 2019 California's Green Building Standards Code (CALGreen; California Code of Regulations, Title 24, Part 11), future infrastructure projects would comply with construction waste management practices to divert a minimum of 65 percent of construction and demolition debris. These practices would result in efficient use of energy necessary to construct CAP-related projects. Upon completion of construction for any CAP-related infrastructure development and redevelopment, non-renewable energy use would be reduced by increasing renewable energy production and storage and reducing VMT within the City.

The purpose and intended effect of the CAP Update is to reduce GHG emissions generated in the City to minimize the effects of climate change, including those emissions generated by energy demand and supply. The CAP Update would not result in the use of non-renewable resources in a wasteful or inefficient manner; rather, it would assist in reducing use of non-renewable energy resources and increasing the production of local renewable energy. Therefore, the CAP Update would result in **no impact** related to the wasteful, inefficient, or unnecessary consumption of energy.

⁴⁶ CEC. 2019. Electricity Consumption by County. Available: <<http://www.ecdms.energy.ca.gov/elecbycounty.aspx>>. Accessed March 30, 2021.

⁴⁷ CEC. 2019. Natural Gas Consumption by County. Available: <<http://ecdms.energy.ca.gov/elecbycounty.aspx>>. Accessed March 30, 2021.

6b. Would the project conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Relevant plans and policies that aim to increase energy efficiency and the production of renewable energy include Senate Bill (SB) 100, the 2019 California Green Building Standards Code, and the 2019 California Energy Code Part 6 (Title 24). SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state’s Renewables Portfolio Standard Program and requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045. The California Green Building Standards Code institutes mandatory minimum environmental performance standards for all ground-up new construction of non-residential and residential structures. In addition, Title 24 establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California’s energy demand. Title 24 is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. New construction and major renovations must demonstrate their compliance with the current Building Energy Efficiency Standards through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC.

The City of Chico has adopted the California Green Building Standards Code and Title 24 pursuant to CMC Title 16R.⁴⁸ Therefore, construction and operation associated with infrastructure projects stemming from the CAP Update would be designed to comply with the energy source standards of the California Green Building Standard Code and Title 24. Future CAP projects would be required to demonstrate compliance with The Green Building Standards Code and Title 24 by implementing sustainability and energy efficiency measures such as high-efficiency lighting and HVAC systems, low-flow water fixtures, dual-paned windows, and water efficient landscaping and irrigation systems. Compliance with these regulations would minimize potential conflicts with adopted energy conservation plans

As discussed under *Response 6a.*, above, CAP Measures E-2 and E-3 propose revisions to the building code in order to mandate that new residential and commercial developments and major remodels be built to an all-electric standard. Measure E-3 also contains Action E-3-3, which requires the electrification of all municipal buildings by 2045. In addition, CAP Measure E-1 would institute a 100 percent renewable electricity option within the City by 2024 and measure E-4 would incentivize the production and storage of local renewable energy through solar projects and battery energy storage. These measures are consistent with the goals and policies established by SB 100, the California Green Building Standards Code, and Title 24. Thus, the CAP Update would not conflict with adopted renewable energy or energy conservation plans and there would be ***no impact***.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. Implementation of the CAP Update would result in reducing use of non-renewable energy resources across the community, in particular with remodeled buildings, new construction, and municipal buildings. Implementation of the CAP Update would also increase the production of renewable energy within the City. Additionally, the CAP Update includes measures to increase the use of active transportation and public transit and reduce VMT within the City, which would reduce transportation fuel use. As the City’s population grows and development intensifies in the future, as

⁴⁸ Chico, City of. 2021. City Municipal Code Chapter 16R Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

anticipated under General Plan buildout, measures contained within the CAP Update would ensure that new development is constructed to strict energy efficiency standards, the City sources its energy from renewable sources, and that growth is directed to infill areas to reduce suburban sprawl and transportation energy use. As the CAP Update would result in decreased non-renewable energy use within the City and would align with existing plans and policies related to renewable energy and energy efficiency, implementation of the CAP Update would result in ***no cumulative impact*** related to energy.

7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

a. Expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving:				
1. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

7a. *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- *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?*
- *Strong seismic ground shaking?*
- *Seismic-related ground failure, including liquefaction?*
- *Landslides?*

Chico is located in a seismic hazard zone according to the California Geological Survey (CGS) and there are ten active faults within the vicinity of the City that could cause seismic-related impacts. However, none of these faults are located within or immediately adjacent to the City and there is no known risk of fault rupture within the City. In addition, according to the General Plan Safety Element, Chico has no to low potential for landslides except for in the foothills area.⁴⁹ The closest active fault is the Cleveland Hills Fault, located approximately 17 miles south of the City, and is capable of producing a magnitude 6.5 to 6.7 earthquake event.⁵⁰ In 2019, Butte County, in coordination with the incorporated cities within the County, adopted an updated Local Hazard Mitigation Plan (LHMP) to assess hazards and reduce risks prior to a disaster event and fully cover the necessity to address seismic and geological hazards. According to the LHMP, the City and surrounding area have relatively low risk from seismic and geologic hazards and may occasionally experience low to medium intensity groundshaking as a result of earthquakes, but the magnitude and intensity are expected to be relatively low.⁵¹

The CAP Update is a policy document containing climate actions and supporting measures to reduce GHG emissions and is consistent with the Chico General Plan, LHMP, and other regional regulations. CAP Measures E-4 and W-1 may result in new or expanded facilities for the purposes of battery energy storage and organic waste recycling. However, the City has relatively low seismic-related risk and the CAP does not propose habitable development that could result in exposure of people to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides. Therefore, the CAP would result in **no impact** related to seismic- and landslide-related hazards.

7b. *Would the project result in substantial soil erosion or the loss of topsoil?*

The CAP Update would not involve land use or zoning changes but would promote sustainable infrastructure development and redevelopment. As a policy document, the CAP would not directly require ground-disturbing activities. However, implementation of several CAP measures may result in construction activities that could cause soil erosion or the loss of topsoil during construction. CAP Actions E-3-2, E-3-3, E-3-7, and E-4-1 through E-4-4 promote building electrification of existing buildings and installation of solar PV systems and battery storage facilities to provide greener renewable electricity within the City. CAP Actions T-1-1, T-1-3 through T-1-5, T-3-1, T-3-5, and T-3-8

⁴⁹ Chico, City of. 2011. Chico 2030 General Plan Safety Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

⁵⁰ Chico, City of. 2010. 2030 General Plan Update Draft Environmental Impact Report. Available: <https://chico.ca.us/sites/main/files/file-attachments/chicodeir_combined_noappendices.pdf?1577755314>. Accessed March 29, 2021.

⁵¹ Butte County. 2019. Local Hazard Mitigation Plan Update. Available: <<https://www.buttecounty.net/oem/mitigationplans>>. Accessed March 23, 2021.

support the installation of new bicycle, pedestrian, and public transit infrastructure throughout the City to increase the use of public transit and active transportation. CAP Actions T-2-1 through T-2-3, T-2-5, and T-2-8 encourage the installation of electric vehicle charging stations and supporting infrastructure. CAP Actions W-1-1 and W-1-3 through W-1-5 relate to increasing organic waste diversion and facility capacities for organic waste collection. Additionally, CAP Actions T-4-3, S-1-1, and S-1-2 encourage increasing parklet, greenspace, and the planting of urban trees within the community.

As such, the CAP could result in construction-related soil erosion and topsoil loss impacts associated with CAP Measures and Actions. However, CAP projects and actions would be reviewed for consistency with Chico General Plan policies and other local and State geology and soils regulations prior to final siting and construction. Soil erosion caused by strong wind and/or earth-moving operations during construction would be minimized through compliance with BCAQMD Rule 205, Fugitive Dust, which prohibits visible particulate matter from crossing property lines. Standard practices to control fugitive dust emissions include watering of active grading sites, covering soil stockpiles with plastic sheeting, and covering soils in haul trucks with secured tarps.

The potential for CAP project construction activities involving soil disturbance to result in increased erosion and sediment transport by stormwater to surface waters would be minimized because future projects would be required to comply with CMC Chapter 16R.22, Grading Standards, and/or a Construction General Permit, which is issued by the State Water Resources Control Board (SWRCB).⁵² These regulations require best management practices (BMPs) to reduce erosion and topsoil loss from stormwater runoff.⁵³ Compliance with the CMC and/or Construction General Permit would ensure that BMPs are implemented during construction and minimize substantial soil erosion or the loss of topsoil. Therefore, the CAP would result in a **less-than-significant impact** related to soil erosion and loss of topsoil.

7c., 7d. Would the project be located on a geologic unit or soil that is unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse? Would the project be located on expansive soil, as defined in Table 1-B of the Uniform Building Code, creating substantial risks to life or property?

According to the LHMP, the City contains areas of generally low potential for liquefaction in the eastern portion and generally moderate potential in the central and western portions. Most of the City is characterized by low to no potential for landslides, with the easternmost foothill areas categorized as moderate risk for landslides.⁵⁴ As shown in Figure S-3 of the General Plan Safety Element, the majority of the City is characterized as having either moderately or highly expansive soils, with the eastern portion of the City characterized by low expansion potential.⁵⁵ The General Plan Safety Element, CMC, and California Building Code (CBC) regulate hazard development and structural hazards created by residential and commercial development in order to mitigate potential impacts related to unstable soils.

⁵² Chico, City of. 2021. City Municipal Code Chapter 16R.22 Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

⁵³ Chico, City of. 2021. City Municipal Code Chapter 16R.22 Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

⁵⁴ Butte County. 2019. Local Hazard Mitigation Plan Update. Available: <<https://www.buttecounty.net/oem/mitigationplans>>. Accessed March 23, 2021.

⁵⁵ Chico, City of. 2011. Chico 2030 General Plan Safety Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

The CAP Update is a policy document containing programs that are consistent with the General Plan. Some of the proposed measures in the CAP would support small-scale construction projects, such as electric vehicle charging stations, battery energy storage systems, and new or expanded organic waste processing facilities. However, CAP projects and actions would be reviewed for consistency with local and State geotechnical regulations prior to final siting and construction. New structures would be required to comply with CMC Title 16R, Building Standards, which adopts the latest CBC, including measures to address unstable soil conditions.⁵⁶ Therefore, the CAP would result in a ***less-than-significant impact*** related to risks associated with location on unstable geologic unit or soil or on expansive soils.

7e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

The CAP Update would not involve the development of habitable structures and, thus, no use of septic tanks or alternative wastewater disposal systems. Therefore, ***no impact*** would occur related to soil capability support of alternative wastewater disposal systems.

7f. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

The City has identified 126 sites within the City and its vicinity that contain fossilized remains of plants and animals.⁵⁷ The General Plan Cultural Resources and Historic Preservation Element includes goals, policies, and actions to protect and preserve cultural and paleontological resources, including Action CRHP-1.16 that requires the City to implement the Best Management Practices Manual to include standard conditions of approval for the protection of paleontological resources.⁵⁸

The CAP Update would not involve land use or zoning changes that would encourage new development but would instead promote infrastructure development and redevelopment. As a policy document, the CAP Update would not directly result in impacts related to paleontological resources or unique geologic features. Most CAP measures that would involve construction activities, such as the transportation measures, would involve work within existing, previously graded and disturbed areas, where the likelihood of encountering intact and previously undiscovered paleontological resources would be minimal. However, implementation of some CAP measures may result in construction activities on previously undisturbed soils. CAP Measure E-4 promotes the installation of solar panels and battery storage facilities to provide renewable electricity within the City and CAP Measure W-1 may result in new or expanded facilities for organic waste collection. These small-scale construction projects may expose paleontological resources during ground disturbing activities. However, CAP projects and actions would be reviewed for consistency with geotechnical and paleontological regulations prior to final siting and construction and would be required to implement BMPs in accordance with the General Plan policies. In addition, the CAP projects would be located and designed strategically to reduce ground disturbance to the

⁵⁶ Chico, City of. 2021. City Municipal Code Chapter 16R Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

⁵⁷ Chico, City of. 2010. 2030 General Plan Update Draft Environmental Impact Report. Available: <https://chico.ca.us/sites/main/files/file-attachments/chicodeir_combined_noappendices.pdf?1577755314>. Accessed March 29, 2021.

⁵⁸ Chico, City of. 2011. Chico 2030 General Plan Cultural Resources and Historic Preservation Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

maximum extent possible. Therefore, the CAP would result in a ***less-than-significant impact*** related to paleontological resources or unique geologic features.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, could expose additional people and property to the low to moderate seismic and geologic hazards that are present in the region. The magnitude of geologic hazards for individual projects, including those associated with implementation of the CAP Update, would depend upon the location, type, and size of development and the specific hazards associated with individual sites. Specific geologic hazards associated with individual project sites would be limited to those sites without affecting other areas. Similarly, potential impacts to paleontological resources associated with each individual site would be limited to that site without affecting other areas, and impacts related to these resources would be minimized on a case-by-case basis. Compliance with existing regulations, including CBC requirements, City-issued permit requirements, the Chico General Plan, and construction general permit requirements, would minimize potential cumulative seismic and geologic impacts. Seismic and geologic hazards would be addressed on a case-by-case basis and would not result in cumulative impacts. Therefore, implementation of the CAP Update would result in a ***less-than-significant cumulative impact*** related to geology and soils.

8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with any applicable plan, policy, or regulation adopted to reduce the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

8a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

The greenhouse effect is a natural occurrence that helps regulate the temperature of the Earth. The majority of radiation from the Sun hits Earth’s surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions. This process is essential to support life on Earth, because it warms the planet by approximately 60°F. Emissions from human activities since the beginning of the industrial revolution (approximately 270 years ago) have been adding to the natural greenhouse effect by resulting in increased gases in the atmosphere that trap heat and contribute to an average increase in Earth’s temperature. Global warming is the observed increase in the average temperature of the Earth’s surface, and climate change is the resultant change in wind patterns, precipitation, and storms over an extended period.

GHGs produced by human activities include CO₂, methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorinated compound (PFC), and sulfur hexafluoride (SF₆) (see Appendix B for more details related to these GHG gases).⁵⁹ Combustion of fossil fuels (gasoline, natural gas, and coal), deforestation, and decomposition of waste release carbon into the atmosphere that had been locked underground and stored in oil, gas, and other hydrocarbon deposits or in the biomass of surface vegetation. Since 1750, estimated concentrations of CO₂, CH₄, and N₂O in the atmosphere have increased by over 36 percent, 148 percent, and 18 percent respectively, primarily due to human activity. Emissions of GHGs affect the atmosphere directly by changing its chemical composition.

⁵⁹ The proposed CAP Update only considers emissions of CO₂, CH₄, and N₂O, because these are the GHGs most relevant to local government policymaking. These gases comprise a large majority of GHG emissions at the community level. The remaining gases (HFCs, PFC, and SF₆) are emitted primarily in private sector manufacturing and electricity transmission and are the subject of regulation at the State level. Therefore, these gases were omitted from the proposed CAP Update.

Changes to the land surface also indirectly affect the atmosphere by changing the way in which Earth absorbs gases from the atmosphere. Potential impacts in California due to climate change include sea level rise, more extreme-heat days and high-ozone days, larger and more frequent forest fires, and more drought years.⁶⁰ Although GHG emissions do not typically cause direct health impacts at a local level, GHG emissions can result in indirect health impacts by contributing to climate change, which can have public health implications. The primary public health impacts of climate change include the following:

- Increased incidences of hospitalization and deaths due to increased incidences of extreme heat events;
- Increased incidences of health impacts related to ground-level ozone pollution due to increased average temperatures that facilitate ozone formation;
- Increased incidences of respiratory illnesses from wildfire smoke due to increased incidences of wildfires;
- Increased vector-borne diseases due to the growing extent of warm climates; and
- Increased stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement.⁶¹

The City of Chico has completed a communitywide GHG emissions inventory for 2017, which is summarized in Table 1. The transportation sector was the largest contributor to Chico's GHG emissions. Figure 3 and Table 4 summarize the communitywide GHG emissions forecast under three scenarios: 1) business-as-usual projections, 2) business-as-usual projections with State measures, and 3) the City of Chico target reduction path along with State measures. As shown therein, under the business-as-usual scenario, communitywide GHG emissions are forecasted to increase to approximately 538,282MT of CO₂e (5.00 MT of CO₂e per capita) by the year 2030, based on anticipated economic and population growth. However, with implementation of State laws and programs, communitywide GHG emissions would decline to approximately 395,317MT of CO₂e (3.67 MT of CO₂e per capita) by 2030. Furthermore, implementation of the CAP alongside State laws and programs would reduce communitywide GHG emissions to approximately 297,386 MT of CO₂e (2.76 MT of CO₂e per capita) by 2030.

The measures included in the CAP combined with State-wide legislation and initiatives and Countywide transportation programs will enable the City of Chico to meet its per capita emissions reduction target 80 percent below 1990 levels (a 45 percent reduction in communitywide emissions) by 2030 and an interim target of 73 percent below 1990 levels (a 28 percent reduction in communitywide emissions) by 2025. The City needs to achieve a GHG emissions reduction of 97,931 MT of CO₂e (0.91 MT of CO₂e per capita) by 2030 to meet its goal. The total estimated GHG reductions that would be achieved by the CAP along with State-wide legislation and initiatives total 240,896 MT of CO₂e by 2030 (2.24 MT of CO₂e per capita and 45 percent below 1990 levels). Because SB 32 is considered an interim target toward meeting the 2045 State goal of carbon neutrality, implementation of the CAP would be considered substantial progress toward meeting the State's long-term 2045 goal. Avoiding interference with and making substantial progress toward these long-term State targets are important, because these targets have been set at levels that

⁶⁰ California Air Resources Board (CARB) and California Environmental Protection Agency (CalEPA). 2009. Environmental Health and Equity Impacts from Climate Change and Mitigation Policies in California: A Review of the Literature. Available: <<http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.386.4605&rep=rep1&type=pdf>>. Accessed May 18, 2021.

⁶¹ California Natural Resources Energy. 2018. California's Fourth Climate Change Assessment Statewide Summary Report. Available: <<http://www.climateassessment.ca.gov/state/>>. Accessed July 24, 2020.

achieve California's fair share of international emissions reduction targets that will stabilize global climate change effects and help avoid the associated adverse environmental consequences.

The CAP Update includes a list of 13 measures, each with individual actions, intended to reduce communitywide GHG emissions. Implementation of the CAP Update would result in the reduction of communitywide operational GHG emissions, while only generating temporary GHG emissions during construction of infrastructure such as electric vehicle charging stations, bicycle paths, and public transit facilities. Additionally, the CAP Update would serve as a pathway to reduce GHG emissions and introduce other beneficial environmental and sustainability effects. These benefits include reduction in building energy consumption, vehicle miles traveled (and thus air pollution), and solid waste generation. Therefore, the CAP would result in a **less-than-significant impact** related to generation of GHG emissions.

8b. Would the project conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The CARB 2017 Climate Change Scoping Plan outlines a pathway to achieving the 2030 reduction targets set under SB 32, which are considered interim targets toward meeting the long-term 2045 carbon neutrality goal established by EO B-55-18. The CAP Update is a policy-level document that sets strategies to reduce GHG emissions within the City in an effort to also comply with State regulations. As discussed under *Response 8a.* above, the CAP Update includes measures to reduce City GHG emissions from forecasted business-as-usual levels to approximately 297,386 MT of CO₂e (2.76 MT of CO₂e per capita) by 2030. The purpose of the CAP Update is to meet Chico's proportionate fair share of the Statewide GHG emissions reduction target set by SB 32 and work toward the State's longer-term target of carbon neutrality identified in Executive Order B-55-18. The CAP Update would not conflict with any applicable GHG reduction plans, including the CARB 2017 Climate Change Scoping Plan. The CAP Update identifies how the City would achieve consistency with the Statewide GHG emissions limit.

The CAP Update would serve as a pathway to reduce GHG emissions and introduce other beneficial environmental and sustainability effects. These benefits include reduction in building energy consumption, vehicle miles traveled (and thus air pollution), and solid waste generation. Therefore, the CAP Update would result in a **less-than-significant impact** related to consistency with applicable GHG emissions reduction plans, policies, and regulations.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. Analyses of GHG emissions and climate change are cumulative in nature, as they affect the accumulation of GHG emissions in the atmosphere. Cumulative projects anticipated under General Plan buildout and that exceed the thresholds discussed above would have a significant impact related to GHG emissions and climate change, both individually and cumulatively. The CAP Update creates a GHG emissions reduction strategy (consistent with Section 15183.5 of the CEQA Guidelines) for the City of Chico. The CAP Update also includes a series of measures and actions that are intended to reduce per capita GHG emissions by approximately 80 percent below 1990 levels (a 45 percent reduction in communitywide emissions) by 2030, which provides substantial progress toward the City meeting State goals. As such, the CAP Update would result in the reduction of GHG emissions rather than generating GHG emissions. Some GHG emissions would occur during construction of CAP-specific infrastructure projects; however, these emissions would be temporary and minor in nature.

Therefore, implementation of the CAP Update would result in a ***less-than-significant cumulative impact*** related to GHG emissions.

9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site that is included on a list of hazardous material 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

9a, 9b. Would the project create a significant hazard to the public or the environment through:

- *The routine transport, use, or disposal of hazardous materials?*
- *Reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

The CAP Update is a policy document containing measures and actions to reduce GHG emissions. The proposed CAP does not involve identified site-specific development and, for the most part, it would not facilitate new development that would involve the routine use of hazardous materials. Implementation of some of the CAP Update measures, such as the installation of bicycle lanes, energy retrofits, and installation of electric vehicle charging stations, would require construction activities. Construction would involve the temporary use of hazardous materials such as vehicle fuels and fluids that could be released should an accidental leak or spill occur. However, these types of materials are not considered acutely hazardous, and storage, handling, and disposal of these materials are regulated by the California Department of Toxic Substances Control (CDTSC), United States Environmental Protection Agency (USEPA), and Occupational Safety & Health Administration (OSHA). In addition, standard construction BMPs for the use and handling of such materials would avoid or reduce the potential for such conditions to occur. Any use of potentially hazardous materials during construction of the project would comply with all local, state, and federal regulations regarding the handling of potentially hazardous materials, including Title 49 of the Code of Federal Regulations and Title 22, Division 4.5 of the California Code of Regulations. Risk of spills would cease after construction is completed. Therefore, construction activities related to CAP Update measures and actions would not be anticipated to create upset and accident conditions involving the release of hazardous materials, and operation of the majority of CAP Update measures would not involve the routine transport, use, or disposal of hazardous materials during operation.

However, CAP Measure E-4 emphasizes increasing local renewable energy production and battery energy storage facilities within the City. Hazardous materials used in battery energy storage facilities would generally consist of the lithium-ion batteries. Lithium ion technology is a common battery storage medium and is considered one of the safest and most efficient methods of energy storage on the market. During normal operation, lithium-ion batteries do not represent a risk to off-site receptors, and safety standards applicable to energy storage facilities and safety certification tests established by independent bodies, such as Underwriters Laboratories, National Fire Protection Association, and International Electrotechnical Commission would prevent any reasonable possibility of a substantial adverse effect on the environment related to the lithium-ion batteries. However, in the unlikely event of a fire, there is a risk of the accidental release of hazardous materials associated with battery energy storage facilities. Any future proposed battery energy storage facilities would therefore be carefully reviewed for appropriate locations, safety measures, and consistency with the General Plan and Municipal Code and applicable local, State, and federal regulations. Therefore, the CAP Update would result in a ***less-than-significant impact*** related to creating a significant hazard through the routine transport, use, or disposal of hazardous materials and reasonably foreseeable upset and accident conditions involving the release of hazardous materials.

9c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The CAP Update is a policy document containing measures to reduce GHG emissions. The proposed CAP Update does not include site-specific proposals and development, nor would it emit or handle hazardous materials. Implementing some CAP measures may require future development or

improvements, such as bike paths, solar panels and battery energy storage facilities, electric vehicle charging stations, or building improvements related to energy efficiency. However, CAP projects and actions would be reviewed to ensure the appropriate location of projects in relation to existing development in the City and would be reviewed for consistency with the General Plan and Municipal Code and applicable local, State, and federal regulations. Therefore, the CAP Update would result in a **less-than-significant impact** related to handling of hazardous materials.

9d. Would the project be located on a site included on a list of hazardous material 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?

The CAP Update is a policy document containing actions and supporting measures to reduce GHG emissions. The proposed CAP Update does not include site-specific proposals and development, but CAP measures and actions could result in projects that could be located on listed hazardous materials site. However, CAP projects and actions would be reviewed for consistency with the General Plan and Municipal Code and would be required to comply with applicable local, State, and federal regulations related to hazardous materials sites. Therefore, the CAP Update would result in a **less-than-significant impact** related to location on a listed hazardous materials site.

9e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Chico Municipal Airport is located in the northern portion of the City. The location as well as goals and policies associated with the airport area are included in the Chico General Plan Safety Element and Butte County Airport Land Use Commission Airport Compatibility Plan for the Chico Municipal Airport.^{62,63} The CAP Update is a policy document that would not increase airport activity or result in additional habitable development or commercial development that could increase potential exposure of residents and employees to aircraft-related hazards. Additionally, CAP projects and actions would be reviewed for consistency with the Chico General Plan and other applicable local and State regulations related to the Chico Municipal Airport. Therefore, the CAP Update would result in **no impact** related to risks associated with location proximate to a public airport.

9f. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The CAP Update is a policy document intended to reduce GHG emissions. The proposed CAP Update does not involve site-specific development, nor would it facilitate new development that would interfere with adopted emergency plans. Implementation of some CAP measures and actions, such as the addition of new pedestrian, bicycle, and public transit facilities, would require construction on local roadways. Construction activities have the potential to require lane closures and may impact traffic and vehicle speeds on the affected roadways; however, these impacts would be temporary and access to roadways would generally be maintained throughout project construction. Furthermore, future projects involving work in the public right-of-way would be required to

⁶² Chico, City of. 2011. 2030 General Plan Safety Element. Available: <https://chico.ca.us/sites/main/files/file-attachments/12._safety_element.pdf?1594855037>. Accessed April 14, 2021.

⁶³ Butte County Airport Land Use Commission. 2017. Airport Land Use Compatibility Plan: Chico Municipal, Oroville Municipal, Paradise, and Ranchoero Airports. Available: <https://www.buttecounty.net/Portals/10/Docs/ALUC/BCALUCP_11-15-17/Butte_County_Airport_Land_Use_Compatibility_Plan_2017-11-15.pdf>. Accessed April 14, 2021.

coordinate with the City to ensure appropriate construction staging and adequate vehicular and pedestrian access on adjacent roadways, pursuant to CMC Chapter 14.08.⁶⁴ Therefore, the CAP Update would result in **no impact** related to impairment or interference with implementation of an emergency response or evacuation plan.

9g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?

According to California Department of Forestry and Fire Protection (CalFIRE), the majority of the City of Chico is not located in designated California Fire Hazard Severity Zones, and the City is not located in a State Responsibility Area.⁶⁵ There is an area of moderate fire hazard in the northwestern portion of the city, adjacent to the Chico Municipal Airport, as well as areas of very high fire hazard in the northeastern portion of the City within Upper Bidwell Park. In addition, areas surrounding the City limits to the east of State Route 99 are categorized as moderate to very high fire hazard risk.⁵⁴ Though the City contains some areas of fire risk and is adjacent to areas of fire risk, the CAP Update does not propose specific development or new residential or commercial land uses that could be subject to wildland fire. Therefore, the CAP Update would result in **no impact** related to risks associated with exposure to wildland fires.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. Hazards and hazardous materials impacts are typically site-specific in nature. CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, are not anticipated to contribute to cumulative hazards and hazardous materials impacts with adherence to applicable General Plan policies and applicable State and federal regulatory requirements. Therefore, implementation of the CAP Update would result in a **less-than-significant cumulative impact** related to hazards and hazardous materials.

⁶⁴ Chico, City of. 2021. City Municipal Code Chapter 14.08. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

⁶⁵ California Department of Forestry and Fire Protection (CalFIRE). 2021. Fire Hazard Severity Zone Viewer. Available: <<https://egis.fire.ca.gov/FHSZ/>>. Accessed April 14, 2021.

10 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

10a. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

The CAP Update is a policy document containing measures intended to reduce GHG emissions in the City. CAP Actions E-3-2, E-3-3, E-3-7, and E-4-1 through E-4-4 promote building electrification of existing buildings and installation of solar PV systems and battery storage facilities to provide greener renewable electricity within the City. CAP Actions T-1-1, T-1-3 through T-1-5, T-3-1, T-3-5, and T-3-8 support the installation of new bicycle, pedestrian, and public transit infrastructure throughout the City to increase the use of public transit and active transportation. CAP Actions T-2-1 through T-2-3, T-2-5, and T-2-8 encourage the installation of electric vehicle charging stations and supporting infrastructure. CAP Actions W-1-1 and W-1-3 through W-1-5 relate to increasing organic waste diversion and facility capacities for organic waste collection. Additionally, CAP Actions T-4-3, S-1-1, and S-1-2 encourage increasing parklet, greenspace, and the planting of urban trees within the community. These measures and actions may result in small scale construction activities in the future that could result in water quality impacts due to soil erosion and ground disturbance, as further discussed under Section 7, *Geology and Soils*, and Topic 10c, below.

However, CAP projects and actions would be reviewed for consistency with local and State regulations, including the National Pollution Discharge Elimination System (NPDES) permitting program which requires implementation of Stormwater Pollution Prevention Plans (SWPPPs) and CMC Chapter 16R.22, Grading Standards.⁶⁶ These regulations require BMPs to reduce water quality impacts from construction activities. Compliance with the CMC and/or NPDES permitting program would ensure that BMPs are implemented during construction to minimize potential impacts to surface and groundwater quality. As such, the CAP's related infrastructure projects would not result in new or different wastewater discharge that would violate water quality standards, waste discharge requirements, or otherwise degrade surface or groundwater quality. Therefore, the CAP Update would result in ***less-than-significant impacts*** related to surface or groundwater water quality in Chico.

10b. 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?

The CAP is a policy document containing programs that are consistent with the City's General Plan. CAP Actions T-4-3, S-1-1, and S-1-2 encourage increasing parklet, greenspace, urban trees, and permeable surfaces within the community, which would help to reduce impermeable groundcover within the City and improve groundwater infiltration. Furthermore, implementation of the CAP Update actions related to infrastructure development and redevelopment, such as improving the active transportation and public transit facilities within the City, would not substantially degrade groundwater quality or groundwater recharge. Therefore, the CAP Update would result in ***no impact*** related to impedance of sustainable groundwater management.

10c. 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:

- *Result in substantial erosion or siltation on- or off-site?*

⁶⁶ Chico, City of. 2021. City Municipal Code Chapter 16R.22. Available: < https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

- *Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
- *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?*
- *Impede or redirect flood flows?*

Implementation of several CAP Update measures may promote infrastructure development and small-scale construction activities within the City. CAP Measure E-4 would promote development of battery storage facilities to provide greener renewable electricity within the City. CAP Actions T-1-1, T-1-3 through T-1-5, T-3-1, T-3-5, and T-3-8 support the installation of new bicycle, pedestrian, and public transit infrastructure throughout the City to increase the use of public transit and active transportation. CAP Actions T-2-1 through T-2-3, T-2-5, and T-2-8 encourage the installation of electric vehicle charging stations and supporting infrastructure. CAP Measure W-1 may result in new or expanded organic waste processing facilities. Additionally, CAP Actions T-4-3, S-1-1, and S-1-2 encourage increasing parklet, greenspace, and the planting of urban trees within the community.

Providing new transportation infrastructure, new greenspace and trees, and battery energy storage and organic waste processing facilities may slightly change the City's existing drainage pattern and amount of impervious surface. Construction of CAP projects could also result in erosion as discussed in Section 7, *Geology and Soils*. However, impacts to drainage and water quality during construction would be minimized through the implementation of BMPs as required by the CMC and NPDES Construction General Permit program. In addition, CAP projects would be in accordance with the General Plan, which includes goals and policies for the protection and preservation of creeks, streams, and groundwater within the City.⁶⁷ Furthermore, CAP Actions T-4-3, S-1-1, and S-1-2 would increase permeable surfaces within the City, which would improve drainage and water quality. Therefore, the CAP Update would result in a ***less-than-significant impact*** related to the alteration of existing drainage patterns.

10d. Would the project result in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The City is not located within designated seiche or tsunami zones. Portions of the City are within the 100- and 500-year flood zones defined by Federal Emergency Management Agency (FEMA) and the City is downstream of three dams.^{68,69} Therefore, areas of the City are at risk of flooding. As described in Response 10c., CAP projects would not impede or redirect flood flows, and as discussed in Section 9, *Hazards and Hazardous Materials*, CAP projects would generally not involve the regular use or storage of hazardous materials with the exception of battery energy storage facilities that include the storage of lithium ion batteries. Future CAP projects, such as battery energy storage facilities, would be reviewed for compliance with the applicable local and State regulations related to flooding and hazardous materials use. Furthermore, any projects associated with implementation of the CAP located in flood-prone areas must comply with Chapter 16R.37, Floodplain Standards, Chapter 16.34, Floodplain Regulations- General Provisions, Chapter 16.37, Flood Plain Regulations- Standards, and Chapter 16.38, Floodplain Regulations- Enforcement, of the CMC which provide

⁶⁷ Chico, City of. 2011. Chico 2030 General Plan. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

⁶⁸ Federal Emergency Management Agency (FEMA). 2021. FEMA Flood Map Service Center. Available: <<https://msc.fema.gov/portal/search?AddressQuery=chico%2C%20ca#searchresultsanchor>>. Accessed April 27, 2021.

⁶⁹ Butte County. 2019. Local Hazard Mitigation Plan Update. Available: <<https://www.buttecounty.net/oem/mitigationplans>>. Accessed March 23, 2021.

requirements to mitigate potential flood risks.^{70,71,72} Therefore, the CAP Update would result in a **less-than-significant impact** related to flooding and inundation resulting in release of pollutants.

10e. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The CAP Update measures would not include activities that would result in the direct extraction of groundwater. Rather, the CAP Update encourages expanded permeable surfaces within the City, which would aid in groundwater recharge and reduced surface water runoff and related water quality issues. The CAP Update would not interfere with or obstruct implementation of water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Therefore, the CAP Update would result in **no impact** related to consistency with a water quality control plan or sustainable groundwater management plan.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, are not anticipated to contribute to cumulative hydrology and water quality impacts with adherence to applicable General Plan policies and applicable local, State, and federal regulatory requirements. Implementation of the CAP would not contribute to an increase in growth and development in Chico but could result in infrastructure development projects, including renewable energy facilities and alternative transportation thoroughfares. As such, implementation of the CAP and other cumulative projects could have incremental impacts related to hydrology and water quality, with potential minor alterations to existing drainage patterns in the City. Therefore, implementation of the CAP Update would result in a **less-than-significant cumulative impact** related to hydrology and water quality.

⁷⁰ Chico, City of. 2021. City Municipal Code Chapter 16R.37. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

⁷¹ Chico, City of. 2021. City Municipal Code Chapter 16.37. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

⁷² Chico, City of. 2021. City Municipal Code Chapter 16.38. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

11a. Would the project physically divide an established community?

The CAP Update is a policy document containing measures that are consistent with the Chico General Plan and does not include measures or specific development projects that would divide an established community. CAP Measures T-1 and T-3 facilitate the provisioning of new bike lanes, shared bikes, bike parking, sidewalks and pedestrian infrastructure and would also improve the public transit system. Such measures would help to increase connectivity within the Chico community. Therefore, the CAP Update would result in **no impact** related to division of an established community.

11b. 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?

The CAP Update is a policy document containing measures that are consistent with the Chico General Plan and that are designed to reduce adverse environmental impacts associated with climate change. Nonetheless, implementing the CAP Update would require some modification of existing policies, including developing and implementing new programs, and projects, or modifying existing ones. For example, CAP Measures E-2 and E-3 include adoptions of new building ordinances to require building electrification for new and existing developments, as well as revisions to Residential Energy Conservation Ordinance. CAP Action T-1-3 would require updates to Title 18 of the CMC to require bicycle infrastructure improvements for major road upgrade projects. CAP Measures T-2 through T-4 would require updates to the CMC and zoning code to increase EV charging infrastructure, reduce VMT through TDM strategies, and improve parking and curb management. In addition, CAP Measure W-1 would require the adoption of a food recovery ordinance and organics collection ordinance to increase the diversion of organic waste in the City. In order to implement these measures, the City Municipal Code, General Plan, and other applicable documents may need to be amended to reflect new or modified requirements. However, where modifications of existing policies are needed, such as updates to policies related to energy, solid waste, transit, and active transportation, the CAP measures would result in greater avoidance or

reduction of environmental effects. Therefore, the CAP Update would result in ***no impact*** related to consistency with current land use plans or policies.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. The CAP Update is a policy document containing measures that are consistent with the City's General Plan. Nonetheless, implementing the CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, would require some modification of existing land use policies, including developing and implementing new programs, and projects, or modifying existing ones. The proposed policy changes are consistent with the intent of the goals and policies established within the City General Plan and Zoning Regulations and would not cumulatively contribute to population growth or the loss of housing. Cumulative projects, including the CAP Update, would be required to adhere to City development regulations and General Plan policies to retain land use character and minimize environmental impacts. Future CAP Update projects and actions would be reviewed for consistency with the General Plan and other applicable regulatory land use actions prior to approval. Therefore, implementation of the CAP Update would result in a ***less-than-significant cumulative impact*** related to land use.

12 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

12a, 12b. 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?
- Locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The City of Chico General Plan and General Plan Update EIR do not identify any mineral resources or mineral resources recovery sites within the City.^{73,74} Furthermore, the CAP Update would not facilitate infrastructure development projects within the City that could result in the loss of availability of known mineral resources. Therefore, the CAP Update would result in **no impact** related to mineral resource.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. The City of Chico General Plan does not identify any mineral resources or mineral resources recovery sites within the City limits. As such, no cumulative impact related to mineral resources could occur. Therefore, implementation of the CAP Update would result in **no cumulative impact** related to mineral resources.

⁷³ Chico, City of. 2011. Chico 2030 General Plan. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

⁷⁴ Chico City of. 2010. 2030 General Plan Update Draft Environmental Impact Report. Available: <https://chico.ca.us/sites/main/files/file-attachments/chicodeir_combined_noappendices.pdf?1577755314>. Accessed March 29, 2021.

13 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

13a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Noise is unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence. Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). Because of the way the human ear works, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of 6 dBA per doubling of distance from point sources (such as construction equipment). Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance; while noise from a point source typically attenuates at about 6 dBA per doubling of distance. Noise levels may also be reduced by the introduction of intervening structures. For example, a single row of buildings between the receptor

and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm that breaks the line-of-sight reduces noise levels by 5 to 10 dBA.

The General Plan Noise Element identifies major sources of noise within the City as roadway traffic, the Chico Municipal Airport, Union Pacific Railroad, and the Enloe Medical Center Heliport. The Noise Element aims to ensure appropriate noise levels considered compatible for community noise environments. The City's normally acceptable exterior noise exposure standard is 65 dBA community noise equivalent level (CNEL) or less for residential and other noise sensitive uses, as shown below in Table 5.⁷⁵ In addition, CMC Chapter 9.38, Noise, establishes noise regulations for residential, commercial, industrial, and public property uses, as well as for construction activity noise.⁷⁶

Table 5 General Plan Noise Element Maximum Allowable Noise Levels

Land Use	Outside Areas (CNEL, dB)
Residential (Single-family, multi-family)	65
Transient Lodging	--
Hospitals, Nursing Homes	65
Theaters, Auditoriums, Music Halls	--
Churches, Meeting Halls	65
Office Buildings	--
Schools, Libraries, Museums	65
Playgrounds, Neighborhoods, Parks	70
Source: City of Chico General Plan Noise Element	

The CAP Update is a policy document containing programs that are consistent with the General Plan. Some of the proposed measures of the CAP would support small scale construction projects. These include CAP Measures E-3 and E-4 that promote building electrification of existing buildings and installation of solar PV systems and battery storage facilities, CAP Measures T-1, T-2, and T-3 that support the installation of new bicycle, pedestrian, electric vehicle and public transit infrastructure, CAP Measure W-1 that could result in new or expanded organic waste processing facilities, and CAP Actions T-4-3, S-1-1, and S-1-2 that encourage increasing parklet, greenspace, and the planting of urban trees within the community. However, CAP projects and actions would be reviewed for consistency with the General Plan and Municipal Code and construction activities would be required to comply with the provisions of CMC Chapter 9.38, including the permitted construction hours and maximum noise limits. Therefore, the CAP Update would not result in significant construction noise related impacts.⁷⁷

⁷⁵ Chico, City of. 2011. Chico 2030 General Plan Noise Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

⁷⁶ Chico, City of. 2021. City Municipal Code Chapter 9.38. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

⁷⁷ Chico, City of. 2021. City Municipal Code Chapter 9.38. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

The CAP Update does not include future projects that would result in substantial operational noise. Rather, the CAP Update encompasses a suite of GHG-reduction opportunities that affect the transportation sector and its associated noise. For example, CAP Measure T-1 facilitate bike lanes, bike parking, and pedestrian infrastructure to increase active transportation and decrease VMT. CAP Measure T-3 intends to increase public transit infrastructure and ridership, while Measures T-4 and T-5 would encourage mode shifts to active and public transit and infill development to reduce urban sprawl and associated VMT. In addition, Measure T-2 encourages the adoption of EVs within the City, which produce less traffic noise than standard vehicles. These measures would reduce VMT and traffic-related noise in Chico. Therefore, the CAP Update would not generate excessive noise levels and, therefore, would result in a ***less-than-significant impact*** related to noise exposure.

13b. Would the project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

While people have varying sensitivities to vibrations at different frequencies, in general they are most sensitive to low-frequency vibration. Vibration in buildings, such as from nearby construction activities, may cause windows, items on shelves, and pictures on walls to rattle. Vibration of building components can also take the form of an audible low-frequency rumbling noise, referred to as groundborne noise.⁷⁸ Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants and vibration-sensitive land uses.

Vibration amplitudes are usually expressed in peak particle velocity (PPV) or Root Mean Square (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used in monitoring of blasting vibration because it is related to the stresses that are experienced by buildings.⁷⁹ Vibration significance ranges from approximately 50 vibration decibels (VdB), which is the typical background vibration-velocity level, to 100 VdB, the general threshold where minor damage can occur in fragile buildings.⁸⁰ The general human response to different levels of groundborne vibration velocity levels is described in Table 6.

⁷⁸ California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual (CT-HWANP-RT-13-069.25.3). Available: <<https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf>>. Accessed May 14, 2021.

⁷⁹ Federal Highway Administration (FHWA). 2006. FHWA Highway Construction Noise Handbook. (FHWAHEP-06-015; DOT-VNTSC-FHWA-06-02). Available: <https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook00.cfm>. Accessed May 14, 2021.

⁸⁰ Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. Available: <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf>. Accessed May 14, 2021.

Table 6 Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day

VdB = vibration decibels
Source: Federal Transit Administration. Transit Noise and Vibration Impact Assessment Manual. 2018.
https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf ⁸¹

The CAP Update is a policy document containing programs that are consistent with the General Plan. Some of the proposed CAP measures would support small-scale construction projects, such as electric vehicle charging station, bike lane, and public transit facility construction that may result in a temporary increase in groundborne vibration. However, CAP projects and actions would be reviewed for consistency with the General Plan and Municipal Code and construction activities would be required to comply with applicable local, State, and federal regulations to ensure that temporary construction impacts related to groundborne vibration would not occur. Furthermore, CAP projects would not include operational sources of groundborne vibration. Therefore, the CAP Update would result in a **less-than-significant impact** related to groundborne vibration.

13c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The Chico Municipal Airport is located in the northern portion of the City. The location as well as goals and policies associated with the airport area are included in the Chico General Plan Safety Element and Butte County Airport Land Use Commission Airport Compatibility Plan for the Chico Municipal Airport.^{82,83} The CAP Update is a policy document that would not increase airport activity or result in additional habitable development or commercial development that could increase potential exposure of residents and employees to aircraft-related noise. Therefore, the CAP Update would result in **no impact** related to aviation-related noise exposure.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. The CAP Update is a policy document containing programs that are consistent with the City of Chico General Plan, including the Noise Element. Nonetheless, the CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, would support construction projects, such as electric vehicle charging station and bicycle lane construction that may result in a temporary

⁸¹ Federal Transit Administration. 2018. Transit Noise and Vibration Impact Assessment Manual. <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf>. Accessed May 14, 2021.

⁸² Chico, City of. 2011. 2030 General Plan Safety Element. Available: <https://chico.ca.us/sites/main/files/file-attachments/12_safety_element.pdf?1594855037>. Accessed April 14, 2021.

⁸³ Butte County Airport Land Use Commission. 2017. Airport Land Use Compatibility Plan: Chico Municipal, Oroville Municipal, Paradise, and Ranchoero Airports. Available: <https://www.buttecounty.net/Portals/10/Docs/ALUC/BCALUCP_11-15-17/Butte_County_Airport_Land_Use_Compatibility_Plan_2017-11-15.pdf>. Accessed April 14, 2021.

increase in groundborne vibration or noise levels. However, cumulative projects, including CAP projects, would be subject to review by the City for compliance with the General Plan and Municipal Code and would be required to comply with applicable State and federal regulations governing construction noise and vibration. Additionally, the CAP Update encompasses a suite of GHG-reduction opportunities that would decrease traffic and traffic-related noise. As such, implementation of the CAP Update would not generate excessive groundborne vibration or noise levels. Therefore, the CAP Update would result in a ***less-than-significant cumulative impact*** related to noise.

14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

14a, 14b. 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)? Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The CAP Update does not include measures, policies, or programs that would result in new housing or jobs or that would displace existing residents or housing. In addition, bike lane and public transit facility infrastructure construction that could result from CAP implementation would be for purposes of replacing existing single-occupancy vehicle use rather than extending infrastructure to support a growth in population. Therefore, the CAP Update would not directly increase the population, indirectly induce additional unplanned population growth, or displace people or housing. Therefore, the CAP Update would result in **no impact** related to population and housing.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, are not anticipated to displace people or housing nor induce substantial unplanned population growth in the City. Specifically, the CAP Update would not contribute to person or housing displacement in the City of Chico nor result in population growth beyond that already assumed and planned for in the General Plan. Therefore, the CAP Update would result in **no cumulative impact** related to population and housing.

15 Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:				
1. Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
2. Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

15a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

- *Fire protection?*
- *Police protection?*
- *Schools?*
- *Parks?*
- *Other public facilities?*

The CAP Update is a policy document containing programs that are consistent with the Chico General Plan. Implementation of the CAP and the proposed measures would not result in increases in population or new employment opportunities that could induce population growth. As such, the CAP Update would not require the construction of new or physically altered governmental facilities to serve additional population, the construction of which could cause significant environmental impacts. Furthermore, CAP Update projects and actions would be reviewed for consistency with the Chico General Plan and other applicable local and State regulations related to public services. Therefore, the CAP Update would result in **no impact** related to public services in terms of need for the construction of new or altered governmental facilities.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. Implementation of CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, would not result in increases in population or induce additional population growth beyond that assumed under the Chico General Plan. Therefore, implementation of the CAP Update would not result in substantial cumulative need to expand public services facilities. Therefore, the CAP Update would result in a *less-than-significant cumulative impact* related to public services.

16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

16a, 16b. 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? Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Chico is a primarily urbanized community with parks and recreational spaces incorporated throughout the City, including the 3,670-acre Bidwell Park and 28 other public parks for a total of 4,176 acres of parkland.⁸⁴ The General Plan Parks, Public Facilities, and Services Element incorporate goals and policies to protect open space/recreational resources in the City. The CAP Update is a policy document containing programs that are consistent with Chico’s General Plan. CAP Action T-4-3 encourages the development of parklets throughout the City and Measure S-1 seeks to increase greenspace and trees within the City, which align with the goals of the Parks, Public Facilities, and Services Element. Additionally, as described in Section 14, *Population and Housing*, the CAP Update would not result in substantial population growth or direct land use changes. As such, implementation of the CAP Update would not result in a substantial physical deterioration of parks or other recreational facilities or result in the need to expand recreational facilities. Therefore, the CAP Update would result in **no impact** related to the need for construction of new or altered recreational facilities.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. Implementation of CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, would not result in increases in population or induce additional population growth beyond that assumed under the General Plan. Therefore, implementation of the CAP would not result in increased demand for parks or substantial cumulative physical deterioration of parks or

⁸⁴ Chico, City of. 2011. Chico 2030 General Plan Parks, Public Facilities, and Services Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

other recreational facilities or result in the cumulative need to expand recreational facilities. In addition, the CAP Update includes measures to increase the number of trees, parklets, and greenspace within the community, which aligns with the General Plan goals. Therefore, implementation of the CAP Update would result in ***no cumulative impact*** related to recreation.

17 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

17a, 17b. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

The City of Chico General Plan Circulation Element includes the following goals:

- 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.
- Goal CIRC-2: Enhance and maintain mobility with a complete streets network for all modes of travel.
- Goal CIRC-3: Expand and maintain a comprehensive, safe, and integrated bicycle system throughout the City that encourages bicycling.
- Goal CIRC-4: Design a safe, convenient, and integrated pedestrian system that promotes walking.
- Goal CIRC-5: Support a comprehensive and integrated transit system as an essential component of a multimodal circulation system.
- Goal CIRC-6: Plan for and promote a full range of aviation services and facilities that meet the present and future needs of residents and the business community.
- Goal CIRC-7: Increase rail services and improve rail freight movement facilities.

- Goal CIRC-8: Provide parking that supports the Citywide goals for economic development, livable neighborhoods, sustainability, and public safety.
- Goal CIRC-9: Reduce the use of single-occupant motor vehicles.⁸⁵

Additionally, the City adopted the Chico Bicycle Plan Update in 2019 to implement the bicycle implement the General Plan goals related to bicycling, complete streets, sustainability, and reducing transportation GHG emissions. The Bicycle Plan includes guidance for establishing and maintaining a network of bicycle facilities that encourages active transportation within the City.⁸⁶

The CAP Update is a policy document containing measures that are consistent with the City General Plan Circulation Element, including many that are aimed at facilitating the implementation of the local transportation programs and improvements. CAP Measure T-1 facilitates bike lanes, bike parking, public outreach, and new transportation planning to increase active transportation and decrease VMT within the City. CAP Measure T-3 promotes active transportation, public transit ridership, shared mobility solutions, and TDM strategies to reduce VMT and improve sustainable transportation practices within the community. CAP Measure T-4 seeks to implement parking and curb management practices within the City to further incentivize alternate modes of transportation. Additionally, CAP Measure T-5 encourages infill development to reduce suburban sprawl and associated VMT.

These CAP measures would be consistent with the General Plan Circulation Element goals and the Bicycle Plan related to improving multi-modal facilities within the City, reducing VMT and single-occupancy vehicles, and encouraging active transportation. Implementation of some of the CAP Update transportation measures may require future infrastructure development or improvements, such as bike paths and sidewalks. However, CAP projects and actions would be reviewed for consistency with the General Plan and Municipal Code and be required to comply with applicable local, State, and federal regulations to reduce any potential construction-related impacts to the circulation system. Furthermore, the CAP Update would seek to reduce VMT within the City, consistent with CEQA Guidelines section 15064.3, subdivision (b). Therefore, the CAP would result in **no impact** related to consistency with plans addressing the transportation circulation system and CEQA Guidelines section 15064.3, subdivision (b).

17c, 17d. Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment) or result in inadequate emergency access?

The CAP Update is a policy document containing measures that are consistent with the City General Plan and would not facilitate development beyond that allowed under the General Plan. CAP Measures T-1 and T-3 would result in new bike lanes, sidewalks/pedestrian paths, and public transit infrastructure, which may result in temporary lane closures on local roadways. However, CAP projects involving work within the public right-of-way would be required to comply with the provisions of CMC Chapter 14.08, Encroachments and Permits, which include compliance with a traffic control plan, safety signage, and project review by the Chico Public Works Department to ensure that significant impacts to the circulation system, including safety impacts and emergency

⁸⁵ Chico, City of. 2011. Chico 2030 General Plan Circulation Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

⁸⁶ Chico, City of. 2019. Chico Bicycle Plan Update. Available: <https://www.csuchico.edu/sustainability/_assets/documents/2019-city-of-chico-bike-plan.pdf>. Accessed April 27, 2021.

access would not occur.⁸⁷ As such, construction of CAP Update projects would not create transportation hazards or result in inadequate emergency access. Furthermore, the CAP Update would facilitate increased active transportation and public transit use and decreased VMT within the City, which in turn would reduce potential transportation hazards and congestion conditions that can hinder emergency response. Therefore, the CAP Update would result in a ***less-than-significant impact*** related to transportation hazards and emergency access.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. The CAP Update is a policy document containing programs that are consistent with the City's General Plan, and, similar to the other cumulative projects anticipated under General Plan buildout, the CAP Update does not propose development beyond that anticipated under the General Plan that would require the provisioning of new roadways. The goals, policies, objectives, measures, and actions included in the CAP Update promote alternative modes of transportation and reduction of VMT throughout the City. In addition, the CAP measures would not conflict with the objectives and policies of the General Plan or Chico Bicycle Plan but would rather be consistent with and promote those plans. Therefore, the CAP Update would result in a ***less-than-significant cumulative impact*** related to transportation.

⁸⁷ Chico, City of. City Municipal Code Chapter 14.08. Available: <https://codelibrary.amlegal.com/codes/chico/latest/chico_ca/0-0-0-1>. Accessed May 18, 2021.

18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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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:

- | | | | | |
|--|--------------------------|--------------------------|-------------------------------------|--------------------------|
| <p>a. 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</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>b. 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 2024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significant of the resource to a California Native American tribe?</p> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

18a, 18b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a 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:

- *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 § 5020.1 (k)?*
- *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 § 5024.1.*

In applying the criteria set forth in subdivision (c) of Public Resources Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

On May 24, 2021, the eight following Native American Heritage Commission (NAHC)-identified local Native American tribal groups were formally notified that the City initiated environmental review of the CAP Update and were invited to provide consultation:

- Berry Creek Rancheria of Maidu Indians

- Estom Yumeka Maidu Tribe of the Enterprise Rancheria
- Greenville Rancheria of Maidu Indians
- KonKow Valley Band of Maidu
- Mechoopda Indian Tribe
- Mooretown Rancheria of Maidu Indians
- Tsi Akim Maidu
- Washoe Tribe of Nevada and California

Under AB 52, Native American tribes typically have 30 days to respond and request further project information and formal consultation. No responses were received to the mailings. No responses have been received, and no formal consultation has been requested. Accordingly, the requirements of AB 52 have been met for the project.

The CAP Update would not involve land use or zoning changes that would increase development within the City but would instead promote sustainable infrastructure development within the urbanized area of the City. As a policy document, the CAP Update would also not directly entail ground disturbing activities. Implementation of the CAP Measures related to building electrification, renewable energy production and storage, transportation, organic waste processing, and greenspace/tree planting may promote infrastructure development and minor construction activities.

CAP Actions E-3-2, E-3-3, E-3-7, and E-4-1 through E-4-4 promote building electrification of existing buildings and installation of solar PV systems and battery storage facilities to provide greener renewable electricity within the City. Electrification retrofits may change the physical environment through the need for upgraded service and electrical panels, branch circuit upgrades, and installation of condensate drains to facilitate the installation of electric heat pumps for water and space heating. The physical changes these upgrades and additions would entail are dependent on the year of building construction and location of electrical and service panels and plumbing connection of condensate drains, which sometimes may include modifications to the interior and/or exterior of buildings for wiring and panel replacement and minor excavation for connection of drainage to sewer systems.

CAP Actions T-2-1 through T-2-3, T-2-5, and T-2-8 encourage the installation of electric vehicle charging stations and supporting infrastructure, CAP Actions T-1-1, T-1-3 through T-1-5, T-3-1, T-3-5, and T-3-8 support the installation of new bicycle, pedestrian, and public transit infrastructure throughout the City to increase the use of public transit and active transportation. These projects would primarily impact previously disturbed areas within the public right-of-way or within existing parking lots and developments. However, the physical changes these installations and enhancements would entail are dependent on the location of construction for the electric vehicle charging connections, active transportation pathways, and public transit facilities, which in some cases may include minor temporary excavation.

In addition, CAP Measure W-1 seeks to increase organic waste diversion within the City and could potentially result in new or expanded organic waste processing facilities, while CAP Actions T-4-3, S-1-1, and S-1-2 encourage increasing parklet, greenspace, and the planting of urban trees within the community. These measure and actions could result in ground disturbance related to the

construction of new facilities and planting new trees. However, the physical changes these installations and enhancements would entail are dependent on the location of construction.

Implementation of these CAP Measures and Actions could impact unknown tribal cultural resources during construction that involves below-grade activities in previously undisturbed soils. However, CAP projects would be required to comply with the General Plan Cultural Resources and Historic Preservation Element, including Action CRHP-1.16 that requires the City to implement the Best Management Practices Manual to include standard conditions of approval for the protection of tribal cultural resources and Action CRHP-3.1.1 that encourages consultation with the Mechoopa Indian Tribe.⁸⁸ As such, tribal cultural resources would be protected prior to and/or upon discovery and, thus, impacts would be reduced to a minimal level. Therefore, the CAP Update would result in a ***less-than-significant impact*** related to tribal cultural resources.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, could increase the potential for adverse effects to unknown tribal cultural resources in the City. Impacts to tribal cultural resources are site-specific; accordingly, as required under applicable laws and regulations, potential impacts associated with cumulative developments would be addressed on a case-by-case basis as cumulative project details and locations become known. Therefore, the CAP Update would result in a ***less-than-significant cumulative impact*** related to tribal cultural resources.

⁸⁸ Chico, City of. 2011. Chico 2030 General Plan Cultural Resources and Historic Preservation Element. Available: <<https://chico.ca.us/post/chico-2030-general-plan>>. Accessed March 29, 2021.

19 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 storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

19a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

The CAP Update is a policy document aimed at reducing solid waste production and energy consumption, amongst other issues, and the related GHG emissions throughout the City of Chico and does not include site-specific infrastructure designs or project proposals. Implementing the CAP Update would not result in an increase in population and housing nor would it facilitate growth beyond that anticipated by the General Plan. As such, implementing the CAP would not create new

demand related to water, wastewater, stormwater drainage, electric power, natural gas power, or telecommunications utilities.

However, projects resulting from implementation of the CAP Update could include redevelopment and/or restructuring of electricity and natural gas power facilities and infrastructure, as well as new local renewable energy generation and storage projects. For example, CAP Actions E-3-2, E-3-3, E-3-7, and E-4-1 through E-4-4 promote building electrification of existing buildings and installation of solar PV systems and battery storage facilities to provide greener renewable electricity within the City. CAP Actions T-2-1 through T-2-3, T-2-5, and T-2-8 encourage the installation of electric vehicle charging stations and supporting infrastructure. Additionally, CAP Measure S-1 facilitates planting shade trees that could reduce cooling needs.

Water Supply Facilities/Infrastructure

The City of Chico obtains its municipal water supply from the California Water Service Company (Cal Water) and is within the Chico-Hamilton City District of Cal Water's services. Cal Water's sources its supply in the Chico-Hamilton City District entirely from groundwater from the Vina Subbasin and the Corning Subbasin of the Sacramento Valley Basin. These subbasins are not adjudicated and are not identified as in critical overdraft condition.⁸⁹ Cal Water addresses issues of water supply in its Urban Water Management Plan (UWMP), which is a long-range planning document used to assess current and projected water usage, water supply planning, and conservation and recycling efforts. The most recently adopted UWMP is the 2015 UWMP; however, Cal Water is currently working on the 2020 UWMP and has released a public draft document for public review.⁹⁰ According to the UWMP, Cal Water has analyzed three different hydrological conditions to determine the reliability of water supplies: average/normal water year, single dry water year, and multiple, dry water year periods. The 2015 UWMP and Draft 2021 UWMP indicate that water supplies under the three hydrological conditions will be sufficient to meet demand through 2040 and 2045, respectively. In addition, both the 2015 UWMP and Draft 2021 UWMP include a Water Shortage Contingency Plan.^{89,90}

~~CAP Actions WW-1-1 and WW-1-3 promote water efficiency through encouraging the use of greywater and rainwater systems, as well as continued implementation of the MWELO requirements. In addition, CAP Action WW-1-2 and CAP~~ Measure S-1 encourages the use of permeable surfaces and the provisioning of new urban greenspace throughout the City and CAP Actions T-4-3, S-1-1, and S-1-2 would increase parklet, greenspace, urban trees, and permeable surfaces within the community, which would aid in improving water infiltration and groundwater recharge. Furthermore, the CAP Update would not result in new land uses, such as increased residential or commercial development, that would contribute to an increase in water use compared to existing conditions or that would require relocation or construction of new water infrastructure. ~~The CAP Update measures are intended to reduce water use within the City.~~ Therefore, the CAP Update would have **no impact** related to the need for construction or expansion of water supply facilities and infrastructure.

⁸⁹ California Water Service Company (Cal Water). 2021. Draft 2020 Urban Water Management Plan: Chico-Hamilton City District. Available: <https://www.calwater.com/docs/uwmp2021/CH_2020_UWMP_Public_Draft-2021-04-09.pdf>. Accessed April 28, 2021.

⁹⁰ California Water Service Company (Cal Water). 2016. 2015 Urban Water Management Plan: Chico-Hamilton City District. Available: <[https://www.calwater.com/docs/uwmp2015/ch/2015_Urban_Water_Management_Plan_Final_\(CH\).pdf](https://www.calwater.com/docs/uwmp2015/ch/2015_Urban_Water_Management_Plan_Final_(CH).pdf)>. Accessed April 28, 2021.

Wastewater Treatment Facilities/Infrastructure

Chico maintains a system of wastewater conveyance and treatment infrastructure for wastewater generated within the City. The City's gravity sewer system consists of over 1,000,000 linear feet of pipeline and 15 lift stations that convey wastewater to the City of Chico Water Pollution Control Plant (WPCP).^{91,92} The WPCP is located 4 miles southwest of the City and also provides wastewater treatment services for development in the surrounding unincorporated areas. The WPCP is designed for a wet-weather peak capacity of 12 million gallons daily (MGD).⁹¹ The City disposes of its treated effluent in the Sacramento River.

The CAP Update would not result in new land uses that would generate sanitary wastewater or otherwise contribute to an increase in wastewater treatment requirements. The amount or characteristics of wastewater treated at the WPCP would not change compared to existing conditions with implementation of the proposed plan. Furthermore, the CAP Update would not require relocation or construction of new wastewater treatment infrastructure. Therefore, **no impact** related to need for construction or expansion of wastewater treatment facilities and infrastructure would occur.

Stormwater Drainage Facilities/Infrastructure

The City of Chico maintains a system of storm drains, gutters, and ditches to convey stormwater generated during rain events. As discussed in Section 10, *Hydrology and Water Quality*, implementation of CAP Measures related to building electrification, renewable energy production and storage, transportation, organic waste diversion, and urban greenspace/trees may promote infrastructure development that would involve small-scale construction. CAP Measures E-3 and E-4 promote building electrification of existing buildings and installation of solar PV systems and battery storage facilities to provide greener renewable electricity within the City. CAP Measures T-1 and T-3 support the installation of new bicycle, pedestrian, and public transit infrastructure throughout the City to increase the use of public transit and active transportation. CAP Measure T-2 encourages the installation of electric vehicle charging stations and supporting infrastructure. CAP Measure W-1 relates to increasing organic waste diversion and facility capacities for organic waste collection. Additionally, CAP Actions T-4-3, S-1-1, and S-1-2 encourage increasing parklet, greenspace, and the planting of urban trees within the community.

Construction of projects implemented in accordance with the CAP Update could result in erosion and potential changes to drainage patterns. However, as described in Section 7, *Geology and Soils*, and Section 10, *Hydrology and Water Quality*, CAP projects would be required to comply with local, State, and federal requirements during construction that would control erosion and potential impacts to the stormwater drainage system. Furthermore, CAP Actions T-4-3, S-1-1, and S-1-2 encourage increasing parklet, greenspace, urban trees, and permeable surfaces within the

⁹¹ Chico, City of. 2021. Water Pollution Control Plant. Available: <<https://chico.ca.us/post/water-pollution-control-plant>>. Accessed April 28, 2021.

⁹² Chico, City of. 2010. 2030 General Plan Update Draft Environmental Impact Report. Available: <https://chico.ca.us/sites/main/files/file-attachments/chicodeir_combined_noappendices.pdf?1577755314>. Accessed March 29, 2021.

community, which would help to reduce impermeable groundcover and stormwater flows to the City's drainage facilities. Therefore, **no impact** related to need for construction or expansion of stormwater drainage facilities and infrastructure would occur.

Electric Power Facilities/Infrastructure

Electric power service in the City is provided by Pacific Gas & Electric (PG&E). CAP Actions E-3-2, E-3-3, E-3-7, and E-4-1 through E-4-4 promote building electrification of existing buildings and installation of solar PV systems and battery storage facilities to provide greener renewable electricity within the City. In addition, CAP Measure E-1 would implement electricity policy changes to automatically enroll accounts in a 100 percent renewable electricity option by 2024, with an opt-out option available to customers. In addition, CAP Measure T-2 encourages new electric vehicle infrastructure throughout the City. These measures may slightly alter electricity demand within the City. However, the CAP Update would serve as a pathway to reduce GHG emissions, including emissions related to energy consumption, and other beneficial environmental and sustainability effects. These benefits include a reduction in energy consumption. Therefore, the CAP Update would result in a **less-than-significant impact** related to construction, expansion, or relocation of electric power facilities and infrastructure.

Natural Gas Power Facilities/Infrastructure

PG&E provides natural gas services to the City. The CAP would not involve new land uses that require new or additional natural gas service that could require the construction of new or expanded natural gas facilities. CAP Measures E-2 and E-3 would encourage building electrification in new and existing buildings to reduce natural gas consumption within the City. Implementation of these measures could involve minor alterations to existing natural gas infrastructure as natural gas use is reduced. However, the CAP Update would serve as a pathway to reduce GHG emissions, including emissions related to energy consumption, and other beneficial environmental and sustainability effects. These benefits include a reduction in natural gas consumption. Therefore, the CAP Update would result in a **less-than-significant impact** related to construction, expansion, or relocation of natural gas facilities and infrastructure.

Telecommunications Facilities/Infrastructure

The City is served by existing telecommunications companies such as AT&T and Comcast. The CAP Update would not alter existing telecommunications facilities and infrastructure and would not involve new land uses or development that would require new telecommunications infrastructure. Therefore, the CAP would result in **no impact** related to need for construction or expansion of telecommunication facilities and infrastructure.

19b, 19c. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? 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?

The CAP Update is a policy-level document that does not include site-specific infrastructure designs or project proposals, nor does it grant entitlements for development that would have the potential to increase demand for water supply or other utility services. Implementing the CAP Update would not result in new residential, commercial, agricultural, or industrial construction and would have no

effect on water demand and wastewater treatment demand. Thus, the CAP Update would result in **no impact** related to water supply and wastewater treatment.

19d, 19e. 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? Would the project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

North Valley Waste Management and Recology Butte Colusa Counties provide solid waste services within the City. The City maintains a compost facility that accepts commercial and residential green waste. Municipal solid waste generated in Chico is primarily disposed of at the Neal Road Recycling and Sanitary Waste Landfill operated by Butte County. The Neal Road Recycling and Sanitary Waste Landfill has a maximum permitted throughput of 1,500 tons of solid waste per day and has a remaining capacity of 20,847,970 cubic yards.⁹³

The CAP Update focuses on sustainable infrastructure development and does not include land use or other policy changes that would result in increased residential, commercial, or other development that would increase solid waste generation within the City. CAP Measure W-1 seeks to increase participation in organic waste recovery and diversion to achieve a 75 percent reduction in organic waste by 2025, as well as generally decreasing the amount of waste produced within the City. Action W-1-1 would require residential and commercial organic waste generators to participate in organic waste collection programs. Action W-1-2 would require the City to pass an edible food recovery ordinance. Actions W-1-3 through W-1-5 would involve pilot programs and capacity planning exercises to better understand how organic waste and edible waste recovery can be increased within the City. These CAP Measures and Actions align with federal, State, and local regulations aimed at reducing solid waste disposal and increase organic waste diversion, such as Senate Bill 1383. While these measures may result in changes to local solid waste recovery services, the CAP would not facilitate habitable development and, thus, would not result in increased solid waste collection and disposal demand. Additionally, because the CAP is a policy document that would not facilitate growth beyond that anticipated by the General Plan, it would not generate solid waste in excess of State or local standards. Therefore, the CAP Update would result in **no impact** related to solid waste.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout within the City, could result in increases in population and additional use of or need for utilities and service systems. However, implementation of the CAP Update and related infrastructure projects would not result in increases in population or induce additional population growth that would require additional use of existing City utilities or service systems. Rather, implementation of the CAP Update would result in reduced energy consumption and solid waste production. Therefore, implementation of the CAP Update would result in a **less-than-significant cumulative impact** related to utilities and service systems.

⁹³ California Department of Resources Recovery and Recycling (CalRecycle). 2021. WIS Facility/Site Activity Details: Neal Road Recycling and Waste Facility. Available: <<https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/110?siteID=108>>. Accessed April 28, 2021.

20 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

20a-20d. *If located in or near State responsibility areas or lands classified as very high fire hazard severity zones, would the project:*

- *Substantially impair an adopted emergency response plan or emergency evacuation plan?*
- *Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*
- *Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*
- *Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

According to CalFIRE, the majority of the City of Chico is not located in designated California Fire Hazard Severity Zones, and the City is not located in a State Responsibility Area.⁹⁴ There is an area of moderate fire hazard in the northwestern portion of the City, adjacent to the Chico Municipal Airport, as well as areas of very high fire hazard in the northeastern portion of the City within Upper Bidwell Park located within the Sierra Nevada foothills. In addition, areas surrounding the City limits to the east of State Route 99 are categorized as between moderate to very high fire hazard risk.⁹²

Though there are areas within and surrounding the City that are at risk of wildfires, the CAP is a policy-level document that does not propose new residential, commercial, or institutional development that could be at risk from wildfire, nor does it grant entitlements for development that would have the potential to directly cause wildfire. In addition, the CAP Update includes measures to promote infill development and reduce urban sprawl at the urban-wildland interface and reduce natural gas infrastructure that poses wildfire risk if damaged during seismic events. Thus, the CAP Update would result in **no impact** related to wildfire.

Cumulative Impacts

The cumulative projects scenario is overall General Plan buildout for Chico in 2030. CAP Update projects, in combination with other cumulative projects anticipated under General Plan buildout, that include new habitable development would not be located in areas designated as very high fire hazard severity zones, given that such designations only exist within Bidwell Park, which is designated or zoned for development. In addition, the CAP Update does not include new habitable development that could be at risk from wildfire, nor does it grant entitlements for development that would have the potential to cause wildfire. Therefore, the CAP Update would result in **no cumulative impact** related to wildfire.

⁹⁴ California Department of Forestry and Fire Protection (CalFIRE). 2021. Fire Hazard Severity Zone Viewer. Available: <<https://egis.fire.ca.gov/FHSZ/>>. Accessed April 14, 2021.

21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Does the project:

a. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

21a. 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?

The intent of the CAP Update is to reduce GHG emissions from Chico community operations through implementation of measures and actions related to energy use, transportation, solid waste, carbon sequestration, and community education and outreach. The CAP measures are consistent with the Chico General Plan and encourage residents, businesses, and the City to reduce energy, fuel use, VMT, and solid waste generation and the associated GHG emissions. The CAP Update would not facilitate development that would eliminate or threaten wildlife habitats or eliminate important examples of the major periods of California history or prehistory. Therefore, as discussed in more detail in Section 4, *Biological Resources*, Section 5, *Cultural Resources*, and Section 18, *Tribal Cultural*

Resources, the CAP Update would result in a **less-than-significant impact** related to biological and cultural resources.

21b. 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)?

Implementation of the CAP Update would result in a cumulatively beneficial reduction of GHG emissions across the City. In addition, as discussed throughout the respective cumulative impacts discussions within this document, the CAP Update would not result in significant cumulative impacts. Rather, implementation of the CAP Update would be consistent with General Plan policies aimed at reducing emissions of GHGs and air pollutants, reducing VMT, reducing energy supply demands on utilities, and decreasing solid waste generation. Therefore, the CAP Update would result in an overall **less-than-significant cumulative impact** related to all CEQA topics addressed within this document.

21c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

In general, impacts to human beings are associated with air quality, greenhouse gas emissions and climate change, hazards and hazardous materials, and noise impacts. As detailed in the preceding sections, the project would not result, either directly or indirectly, in substantial adverse effects related to air quality, greenhouse gas emissions, hazards, and noise. As discussed in more detail in Section 3, *Air Quality*, Section 13, *Noise*, and Section 17, *Transportation*, the CAP Update could cause temporary construction impacts related to transportation, air quality, and noise that could, in turn, affect human beings but would not result in a substantial adverse effects. Rather, as discussed throughout this document, the CAP would serve as a pathway to reduce GHG emissions and would result in other positive environmental and sustainability effects. These benefits include reduction in building energy consumption and VMT, and solid waste generation and would improve air quality. Therefore, the CAP Update would result in a **less-than-significant impact** related to potential for adverse effects on human beings.

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Appendix A

Sources, Health Effects, and Typical Controls Associated with Criteria Pollutants

Sources, Health Effects, and Typical Controls Associated with Criteria Pollutants

Pollutant	Sources	Health Effects	Typical Controls
Ozone (O ₃)	Formed when reactive organic gases (ROG) and nitrogen oxides react in the presence of sunlight. ROG sources include any source that burns fuels (e.g., gasoline, natural gas, wood, oil); solvents; petroleum processing and storage.	Breathing difficulties, lung tissue damage, vegetation damage, damage to rubber and some plastics.	Reduce motor vehicle reactive organic gas (ROG) and nitrogen oxide (NO _x) emissions through emission standards, reformulated fuels, inspections programs, and reduced vehicle use. Limit ROG emissions from commercial operations, gasoline refueling facilities, and consumer products. Limit ROG and NO _x emissions from industrial sources such as power plants and manufacturing facilities.
Carbon monoxide (CO)	Any source that burns fuel such as automobiles, trucks, heavy construction and farming equipment, residential heating.	Chest pain in heart patients, headaches, reduced mental alertness.	Control motor vehicle and industrial emissions. Use oxygenated gasoline during winter months. Conserve energy.
Nitrogen dioxide (NO ₂)	See Carbon Monoxide.	Lung irritation and damage. Reacts in the atmosphere to form ozone and acid rain.	Control motor vehicle and industrial combustion emissions. Conserve energy.
Sulfur dioxide (SO ₂)	Coal or oil burning power plants and industries, refineries, diesel engines.	Increases lung disease and breathing problems for asthmatics. Reacts in the atmosphere to form acid rain.	Reduce use of high sulfur fuels (e.g., use low sulfur reformulated diesel or natural gas). Conserve energy.
Respirable particulate matter (PM ₁₀)	Road dust, windblown dust, agriculture and construction, fireplaces. Also formed from other pollutants (NO _x , SO _x , organics).	Increased respiratory disease, lung damage, cancer, premature death, reduced visibility, surface soiling.	Control dust sources, industrial particulate emissions, woodburning stoves and fireplaces. Reduce secondary pollutants which react to form PM ₁₀ . Conserve energy.
Fine particulate matter (PM _{2.5})	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning. Also formed from reaction of other pollutants (NO _x , SO _x , organics, and NH ₃).	Increases respiratory disease, lung damage, cancer, and premature death, reduced visibility, surface soiling. Particles can aggravate heart diseases such as congestive heart failure and coronary artery disease.	Reduce combustion emissions from motor vehicles, equipment, industries, and agricultural and residential burning. Precursor controls, like those for ozone, reduce fine particle formation in the atmosphere.
Lead	Metal smelters, resource recovery, leaded gasoline, deterioration of lead paint.	Learning disabilities, brain and kidney damage. Control metal smelters.	No lead in gasoline or paint.
Sulfur Dioxide (SO ₂)	Coal or oil burning power plants and industries, refineries, diesel engines.	Increases lung disease and breathing problems for asthmatics. Reacts in the atmosphere to form acid rain.	Reduce use of high sulfur fuels (e.g., use low sulfur reformulated diesel or natural gas). Conserve energy.
Sulfates	Produced by reaction in the air of SO ₂ , (see SO ₂ sources), a component of acid rain.	Breathing difficulties, aggravates asthma, reduced visibility.	See SO ₂

Pollutant	Sources	Health Effects	Typical Controls
Hydrogen Sulfide	Geothermal power plants, petroleum production and refining, sewer gas.	Nuisance odor (rotten egg smell), headache and breathing difficulties (higher concentrations).	Control emissions from geothermal power plants, petroleum production and refining, sewers, and sewage treatment plants.
Visibility Reducing Particulates	See PM _{2.5}	Reduced visibility (e.g., obscures mountains and other scenery), reduced airport safety.	See PM _{2.5}
Vinyl Chloride	Exhaust gases from factories that manufacture or process vinyl chloride (construction, packaging, and transportation industries).	Central nervous system effects (e.g., dizziness, drowsiness, headaches), kidney irritation, liver damage, liver cancer.	Control emissions from plants that manufacture or process vinyl chloride, installation of monitoring systems.
Toxic Air Contaminant (TAC)	Combustion engines (stationary and mobile), diesel combustion, storage and use of TAC-containing substances (i.e., gasoline, lead smelting, etc.)	Depends on TAC, but may include cancer, mutagenic and/or teratogenic effects, other acute or chronic health effects.	Toxic Best Available Control Technologies (T-BACT), limit emissions from known sources.

Source: Compiled by Rincon Consultants, Inc. in May 2021

Appendix B

Description of Greenhouse Gases of California Concern

Description of Greenhouse Gases of California Concern

Greenhouse Gas	Physical Description and Properties	Global Warming Potential (100 years)	Atmospheric Residence Lifetime (years)	Sources
Carbon dioxide (CO ₂)	Odorless, colorless, natural gas.	1	50–200	Burning coal, oil, natural gas, and wood; decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; oceanic evaporation; volcanic outgassing; cement production; land use changes
Methane (CH ₄)	Flammable gas and is the main component of natural gas.	28 ⁹⁵	12	Geological deposits (natural gas fields) extraction; landfills; fermentation of manure; and decay of organic matter
Nitrous oxide (N ₂ O)	Nitrous oxide (laughing gas) is a colorless GHG.	298	114	Microbial processes in soil and water; fuel combustion; industrial processes
Chloro-fluoro-carbons (CFCs)	Nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (level of air at the Earth's surface); formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms.	3,800–8,100	45–640	Refrigerants aerosol propellants; cleaning solvents
Hydro-fluoro-carbons (HFCs)	Synthetic human-made chemicals used as a substitute for CFCs and contain carbon, chlorine, and at least one hydrogen atom.	140 to 11,700	1–50,000	Automobile air conditioners; refrigerants
Per-fluoro-carbons (PFCs)	Stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface.	6,500 to 9,200	10,000–50,000	Primary aluminum production; semiconductor manufacturing
Sulfur hexafluoride (SF ₆)	Human-made, inorganic, odorless, colorless, and nontoxic, nonflammable gas.	22,800	3,200	Electrical power transmission equipment insulation; magnesium industry, semiconductor manufacturing; a tracer gas

⁹⁵ The City of Chico used a 20-year Global Warming Potential for methane.

Greenhouse Gas	Physical Description and Properties	Global Warming Potential (100 years)	Atmospheric Residence Lifetime (years)	Sources
Nitrogen trifluoride (NF ₃)	Inorganic, is used as a replacement for PFCs, and is a powerful oxidizing agent.	17,200	740	Electronics manufacture for semiconductors and liquid crystal displays

Source: Compiled by Rincon Consultants, Inc. in May 2021
