

This section summarizes the cumulative impacts associated with the proposed General Plan Update using the same environmental issue areas as Section 4.0. Cumulative impacts are the result of combining the potential effects of the project (i.e., the proposed General Plan Update) with other existing, approved, proposed, and reasonably foreseeable development projects in the region. The following discussion considers the cumulative impacts of the relevant environmental issue areas.

5.1 INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an environmental impact report (EIR) contain an assessment of the cumulative impacts that could be associated with the proposed project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." *Cumulatively considerable* means that the incremental effects of an individual 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 (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact IS an impact created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

. . . the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

In addition, Section 15130(b) identifies the following elements as necessary for an adequate cumulative impact analysis:

- 1) *Either:*
 - (A) *A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or,*
 - (B) *A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.*
- 2) *A definition of the geographic scope of the area affected by the cumulative effect and a reasonable explanation for the geographic limitation used;*
- 3) *A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and*
- 4) *A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.*

5.0 CUMULATIVE IMPACTS

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

APPROACH TO THE CUMULATIVE IMPACT ANALYSIS

The analysis of cumulative impacts for each environmental factor can employ one of two methods to establish the effects of other past, current, and probable future projects. A lead agency may select a list of projects, including those outside the control of the agency, or alternatively, a summary of projects. These projects may be from an adopted general plan or related planning document, or from a prior environmental document that has been adopted or certified, and they may describe or evaluate regional or area-wide conditions contributing to the cumulative impact. The analysis provided in the Draft EIR utilizes both approaches.

Definition of Cumulative Setting

The cumulative setting conditions considered in this Draft EIR are based on:

- **Regional Growth Projections.** Butte County Association of Governments (BCAG) is an association of all the local governments within Butte County. Its members include the cities of Biggs, Chico, Gridley, and Oroville, the Town of Paradise, and the County of Butte. BCAG is responsible for developing federal and state transportation plans and programs that secure transportation funding for the region's highways, transit, streets and roads, as well as pedestrian and other transportation system improvements. Presented in **Table 4.0-2** and **4.0-3** are housing and population projections that BCAG anticipates within Butte County by the year 2030. County growth is anticipated to occur at an annual rate of 2 percent.
- **Local Adopted General Plans.** These are the existing land use plans in the region, consisting of the cities of Biggs, Gridley, and Oroville, the Town of Paradise, and Butte County. It should be noted that Butte County is currently in the process of updating its general plan (public draft released in 2009), which includes land use planning for some areas that are also addressed in the City of Chico's proposed General Plan Update. This Draft EIR cumulative setting and impact analysis acknowledges the Butte County general plan update process.
- **Large-Scale Development Projects.** This includes current large-scale proposed and approved development projects within Chico (see **Table 4.0-4**). It should be noted that this list is not intended to be all-inclusive of development activities in the city, but rather a general description of current development activities.
- **Effect of Regional Conditions.** The cumulative setting considers background traffic volumes and patterns on regional and state highways (e.g., State Route (SR) 99 and SR 32), background air quality conditions, and other associated environmental conditions that occur within the region, both inside and outside of the Planning Area.
- **Consideration of Existing Development Patterns.** The cumulative setting considers the current environmental conditions of existing development and past land use activities in the region. This includes major land use activities in the City of Chico and its associated SOI.

Each technical section of the Draft EIR includes a description of the geographic setting in the context of cumulative impacts based on the characteristics of the environmental issue under consideration as set forth in Section 15130(b) of the State CEQA Guidelines. For some issues, such as air quality, this area is very large, often extending over city and county lines to other parts of Northern California.

5.2 CUMULATIVE IMPACTS ANALYSIS

This subsection provides an analysis of overall cumulative impacts of the project taken together with other past, present and probable future projects producing related impacts, as required by Section 15130 of the CEQA Guidelines. The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the proposed General Plan Update project itself would cause a cumulatively considerable (and thus significant) incremental contribution to any such cumulatively significant impacts. (See CEQA Guidelines Section 15130[a]–[b], Section 15355[b], Section 15064[h], Section 15065[c]; *Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal.App.4th98, 120.) In other words, the required analysis intends to create a broad context in which to assess the project's incremental contribution to anticipated cumulative development impacts, viewed on a geographic scale well beyond the project site itself (in this case, the Planning Area), and then to determine whether the project's incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., cumulatively considerable in CEQA parlance).

Pursuant to Section 15130 of the CEQA Guidelines, “(t)he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impacts to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.” The proposed project is considered to have a significant cumulative effect if:

- 1) The cumulative effects of development without the project are not significant and the project's additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
- 2) The cumulative effects of development without the project are already significant and the project contributes measurably to the effect. The term “measurably” is subject to interpretation. The standards used herein to determine measurability are that either the impact must be noticeable to a reasonable person, or must exceed an established threshold of significance.

Identified below is a compilation of the cumulative impacts that would result from the implementation of the project and future development in the vicinity. The following cumulative impacts of the proposed General Plan Update are specifically identified in Sections 4.1 through 4.14 of this Draft EIR. The reader is referred to the various environmental issue areas of these sections for further details and analysis of the cumulative impacts.

As noted in this Draft EIR, most of the impacts associated with the proposed project are less than cumulatively significant in all but a few topic areas. Cumulative impacts will be less than significant in subject categories including land use, population and housing, human health/risk of upset, traffic and circulation, geology and soils, hydrology and water quality, cultural and paleontological resources, and public services and utilities.

5.0 CUMULATIVE IMPACTS

LAND USE

Cumulative Land Use Impacts

Impact 4.1.4 Implementation of the proposed General Plan Update, in addition to existing, proposed, approved, and reasonably foreseeable development in the City of Chico and Butte County, would contribute to cumulative land use impacts associated with the division of an established community or conflicts with land use plans and regulations that provide environmental protection.

Under cumulative conditions, the proposed General Plan Update and subsequent development would not contribute to land use conflicts beyond those discussed in Impacts 4.1.1, 4.1.2, and 4.1.3 in Section 4.1, Land Use. There would be no further contribution to the division of an established community or conflicts between planning documents and regulations. As identified under Impacts 4.1.1 through 4.1.3, proposed General Plan Update policies and actions provide for land use compatibility within the Planning Area and for coordination with County land use planning as well as the HCP. Thus, this impact is **less than cumulatively considerable**.

AGRICULTURAL RESOURCES

Cumulative Impacts to Agricultural Resources

Impact 4.2.4 Implementation of the proposed General Plan Update, along with regional and statewide growth, would result in a contribution to the conversion of important farmland.

Key themes of the proposed General Plan include the protection of agricultural resources and keeping urban growth limits. These themes reflect the City's desire to retain a compact urban form, and to emphasize infill and redevelopment, as well as new complete neighborhoods contiguous to existing urban areas. Much of the agricultural land currently within the SOI is surrounded by urban uses, and as a result it has been compromised and may not be considered "viable" agricultural land. The City recognizes the importance of agricultural lands and is committed to protecting this resource as supported by its continued commitment to the Greenline. The Greenline restricts development on the prime farmlands west of Chico and preserves this area for agricultural production. The use of the Greenline would continue to ensure the long-term ability of agricultural uses and serves as an urban growth boundary to restrict the conversion of farmland.

However, the proposed General Plan Update could still result in the conversion of up to 1,041 acres of Prime farmland and 26 acres of Unique Farmland. The proposed General Plan policies and actions do not completely offset the loss of important farmland, which is a statewide cumulative concern. Since no cumulative threshold of acceptable important farmland loss has been established by the State or Butte County, any contribution is determined cumulatively considerable in this Draft EIR. Thus, the contribution to cumulative impacts on agricultural resources is considered to be a **cumulatively considerable** and **significant and unavoidable** impact.

POPULATION/HOUSING/EMPLOYMENT

Cumulative Population and Housing Increases

Impact 4.3.3 Subsequent land use activities associated with implementation of the proposed General Plan Update, in addition to existing, approved, proposed, and reasonably foreseeable development, could result in a cumulative increase in population and housing growth in the City of Chico as well as in the surrounding Butte County region, along with associated environmental impacts. However, implementation of the proposed General Plan Update would accommodate anticipated residential and employment growth in an efficient and compact manner.

Both the City of Chico and BCAG anticipates that growth within Butte County as a whole with to occur at an annual rate of 2 percent. As discussed under Impact 4.3.1, the proposed General Plan Update would provide capacity to meet and exceed the city's anticipated 2030 housing and employment needs. However, it is important to note that the proposed General Plan Update does not include any policy provisions that require that its build-out potential be attained and that additional land capacity beyond the projected need provides a land supply "buffer" to address the fact that not all of the identified land will be available for development at any given time based on landowner willingness to sell or develop, site readiness, environmental constraints, market changes, and other factors. Population growth in the city would be accommodated via infill and redevelopment focused in the Downtown and along transit, as well as in Special Planning Areas to be developed as connected and complete neighborhoods with a mix of residential densities, employment, services, and retail, parks and open space. The proposed General Plan Update policy provisions and its Land Use Diagram would provide for growth with minimal outward expansion of the city's existing boundaries and would retain the current Greenline along the western boundary of the city. Thus, growth accommodated under the proposed General Plan Update would be confined to the immediate Chico area and would avoid the growth effects of sprawl development patterns or induced growth in the larger Butte County region. Thus, this impact is considered **less than cumulatively considerable**.

HUMAN HEALTH/RISK OF UPSET

Cumulative Wildland Fire Hazards

Impact 4.4.7 Potential development under the proposed General Plan Update, along with increased urban development in Butte County, would not result in cumulative wildland fire hazard impacts.

Any new development or redevelopment in areas at risk for wildland fire hazards would be required to comply with minimum standards for materials and material assemblies to provide a reasonable level of exterior wildfire exposure protection for buildings in wildland-urban interface areas as required by the 2007 California Fire Code. Proposed General Plan Update Actions S-4.3.2 and S-4.3.3 would reduce wildland fire hazards to future development by considering buffer areas and incorporating state standards to protect structures in wildland fire areas. In addition, the Butte County Multi-Jurisdictional All Hazard Pre-Disaster Mitigation Plan addresses the prevention of injury and damage from wildland fire hazards in Butte County and identifies past and present mitigation activities, current policies and programs, and mitigation strategies for wildland fire hazards. The Bidwell Park Master Management Plan also reduces the probability of wildfire impacts to landowners and residents surrounding Bidwell Park, one of the most wildland fire prone areas of the city. These policies and regulations, in conjunction with the

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existing California Fire Code and the measures identified in the Butte County Multi-Jurisdictional All Hazard Pre-Disaster Mitigation Plan, would reduce cumulative impacts associated with wildland fires to a **less than cumulatively considerable** level.

TRAFFIC AND CIRCULATION

Cumulative Traffic Impacts on Local Roadways and State Highways

Impact 4.5.7 When considered with existing, proposed, planned, and approved development in the region, implementation of the proposed General Plan Update would contribute to cumulative traffic volumes in the region that result in significant impacts to level of service and operations.

Build out of the proposed General Plan Update would add substantial traffic volumes on local roadways and state highway facilities that would result in significant traffic impacts within the Planning Area as well as in adjoining jurisdictions in Butte County. Improvements to regional transportation facilities associated with cumulative traffic conditions are intended to be addressed through implementation of regional programs, such as the Butte County Regional Transportation Plan. Impacted facilities include segments of SR 32 and SR 99.

Implementation of proposed General Plan Update policies and actions would assist in reducing its cumulative contribution to regional traffic effects. Specifically, the proposed General Plan Update includes Policy CIRC-1.3 that identifies the collection of the fair share cost of improvements necessary to address cumulative transportation impacts, including roadway, transit, pedestrian, and bicycle facilities, through the City's development impact fee program. In addition, the City of Chico and Caltrans have entered into a funding agreement for mitigating local developments' impact to state facilities. Further, Action CIRC-1.8.3 commits the City to continue to consult with BCAG and Caltrans regarding the prioritization and timely construction of programmed freeway and interchange improvements on the state highway system. However, this impact would still be considered **cumulatively considerable** and **significant and unavoidable** as the City does not have authority over improvements outside of the City's jurisdiction (e.g., facilities in Butte County and Caltrans facilities such as SR 32 and SR 99), and the City cannot ensure that these improvements would be completed. With the exception of funding sources for regional traffic improvements associated with the BCAG RTP, there are no other regional traffic mitigation programs in which the City could participate to minimize its regional traffic impact.

AIR QUALITY

Result in a Cumulatively Considerable Net Increase in Nonattainment Criteria Pollutant

Impact 4.6.7 Implementation of the proposed General Plan Update, in combination with cumulative development in the Sacramento Valley Air Basin, would result in a cumulatively considerable net increase of ozone and coarse and fine particulate matter.

The proposed General Plan Update seeks to reduce the environmental impact of land use development by limiting the amount of land consumed and increasing the viability of walking, biking, and transit by balancing growth and conservation through the reinforcement of the city's compact urban form, establishing urban growth limits, and managing where and how growth and conservation will occur. The proposed General Plan Update and its Land Use Diagram and Circulation Plan would provide for well-connected growth while minimizing outward expansion

of the City's boundaries, and would reduce per capita increases in vehicle miles traveled within the city and thus reduce air quality impacts as compared to a more sprawling growth pattern. In addition, as discussed above, all projects in Butte County and in the City of Chico are subject to applicable BCAQMD rules and regulations in effect at the time of construction. The proposed General Plan Update contains Action OS-4.1.2 which mandates that during project and environmental review, the City shall evaluate air quality impacts and incorporate applicable mitigations to reduce impacts consistent with BCAQMD requirements. BCAQMD's CEQA Air Quality Handbook (BCAQMD, 2008), identifies a list of best available mitigation strategies tailored to the type of project being proposed. However, while implementation of proposed General Plan Update policies and actions, as well as BCAQMD requirements, would assist in preventing, reducing, and minimizing the proposed General Plan Update's contribution to cumulative air quality impacts, a considerable amount of the ozone that is monitored in the SVAB results from pollutants that have been transported from the San Francisco Bay Area. Due to the lack of physical barriers and coastal winds blowing inland, air pollution generated in the metropolitan Bay Area is easily spread to the Sacramento Valley. As such, the City and other jurisdictions in the SJVAB often have little control over factors that affect air quality conditions. Even after implementation of smart growth policies and BCAQMD requirements, the project's contribution is still considered **cumulatively considerable** and thus a **significant and unavoidable** impact as these actions might not fully offset air pollutant emissions resulting from construction and operational activities and could violate or substantially contribute to a violation in O₃, PM₁₀, and/or PM_{2.5} federal and state standards. There are no feasible mitigation measures that can further offset air pollutant emissions from subsequent development and growth under the proposed General Plan Update.

NOISE

Cumulative Transportation Noise Impacts

Impact 4.7.7 Implementation of the proposed General Plan Update, in combination with other development in nearby unincorporated areas of the county, would increase transportation noise along area roadways.

Implementation of the proposed General Plan Update noise policies discussed under Impact 4.7.3 would reduce potential transportation noise impacts in the city. Future development projects would be required to analyze project-related noise impacts and incorporate necessary noise reduction measures sufficient to achieve applicable noise standards.

However, it may not be possible to fully mitigate transportation noise in all areas of the city, particularly for existing development that may be constrained due to age, placement, or other factors which limit the feasibility of mitigation (residences fronting on the roadway that limits the ability to utilize noise barrier). In addition, the City does not have jurisdiction to implement noise mitigation outside of its boundaries (or may not be allowed to in Caltrans right-of-way) to address potential noise impacts to the surrounding, nearby unincorporated areas of Butte County. It is important to note that the increases in traffic noise levels associated with build-out of the proposed General Plan Update would occur gradually over a period of 20 years or more. Nonetheless, the proposed General Plan Update's contribution to cumulative traffic noise would be **cumulatively considerable** and a **significant and unavoidable** impact.

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GEOLOGY AND SOILS

Cumulative Geologic and Soil Hazards

Impact 4.8.5 Subsequent land use activities associated with implementation of the proposed General Plan Update, in combination with other existing, planned, proposed, and reasonably foreseeable development in the region, may result in cumulative geologic and soil hazards. However, policy provisions in the proposed General Plan Update and continued implementation of the City's Municipal Code would ensure that potential development is not adversely impacted by cumulative geologic and soil hazards.

All new development, including development in areas outside of the City of Chico, would have to comply with the CBC, which requires stringent earthquake-resistant design parameters and common engineering practices requiring special design and construction methods that reduce or eliminate potential expansive soil-related impacts. Furthermore, any development involving clearing, grading, or excavation that causes soil disturbance of 1 or more acres is subject to NPDES CGP provisions, which would significantly reduce the potential for substantial erosion or topsoil loss to occur in association with new development by requiring an approved SWPPP that provides a schedule for the implementation and maintenance of erosion control measures and a description of erosion control practices, including appropriate design details and a time schedule. The proposed General Plan Update also requires that damage to new structures from seismic, geologic, or soil conditions be prevented to the maximum extent feasible. Furthermore, site-specific review, including geotechnical reports, required by the City of Chico would reduce the proposed General Plan Update's contribution to cumulative impacts to **less than cumulatively considerable**, and no further mitigation is required.

HYDROLOGY AND WATER QUALITY

Cumulative Water Quality Impacts

Impact 4.9.5 Land uses and growth under the proposed General Plan Update, in combination with current land uses in the surrounding region, could introduce substantial grading, site preparation, and an increase in urbanized development.

As part of NPDES, the State Water Resources Control Board has adopted a General Permit for the Discharge of Storm Water from Small MS4s to provide permit coverage for smaller municipalities, with which the City complies through implementation of its Storm Water Management Program that provides water quality protections for surface water and groundwater.

Sections 16.22 through 16.32 of the Municipal Code, Grading Regulations and General Provisions, regulates grading on all property in Chico to avoid pollution of watercourses with nutrients, sediments, or other earthen materials generated or caused by surface runoff on or across the permit area. In addition, Chico Municipal Code Section 18R.08.050 states that development shall provide storm drainage facilities that will convey stormwater runoff to an existing drainage channel or drainage system. The California Stormwater Quality Association has prepared technical studies that have identified that water quality control features (when inspected and monitored properly), have been successful in controlling water quality and avoiding groundwater quality impacts. Furthermore, the proposed General Plan Update contains policies and actions with restrictions and corresponding performance standards that

address this surface water quality impacts. These are discussed under Impacts 4.9.1 and 4.9.2 in Section 4.9, Hydrology and Water Quality. These policies and actions, as well as compliance with the City's Municipal Code and Storm Water Management Program, would ensure that the proposed General Plan Update's contribution to cumulative water quality impacts would be mitigated. Thus this impact would be **less than cumulatively considerable**.

Cumulative Drainage and Flood Hazards

Impact 4.9.6 Implementation of the proposed General Plan Update could increase impervious surfaces and alter drainage conditions and rates in the Planning Area, which could contribute to cumulative flood conditions downstream.

The City of Chico adopted a Storm Drainage Master Plan in September 2000 that identifies the public storm drain improvements necessary to serve a major portion of the city. The Storm Drainage Master Plan identifies specific projects to improve existing storm drainage and to provide drainage facilities for future development. Proposed Parks, Public Facilities, and Services Element Action PPF5-6.1.1 ensures periodic updates of the Storm Drainage Master Plan in order to identify areas with infrastructure deficiencies and to establish a program to install, upgrade, and enhance stormwater management infrastructure necessary to meet City standards. In addition, the City has adopted Section 18R.08.050, Design Criteria and Improvements Standards: Storm Drainage, into the Municipal Code, which establishes design criteria and improvement standards for storm drain management and facilities. Chapter 16R.37 of the City Municipal Code constitutes the floodplain standards of the City to apply to all development occurring within floodplains in Chico.

In addition, the proposed General Plan Update includes several policies and actions that address flooding. The policies and actions are discussed under Impacts 4.9.3 and 4.9.4 in Section 4.9, Hydrology and Water Quality.

The proposed General Plan's contribution to the cumulative condition of drainage and flood-related impacts in the area, as well as its potential incremental contribution to cumulative impacts, would be reduced to **less than cumulatively considerable**.

BIOLOGICAL RESOURCES

Cumulative Biological Resource Impacts

Impact 4.10.4 The proposed General Plan Update, in combination with other reasonably foreseeable projects, would result in direct and indirect mortality and loss of habitat for special-status species, sensitive and/or critical habitat.

A key goal of the General Plan Update is to produce a compact urban form through balanced growth that relies on infill, redevelopment, and several mixed-use new growth areas. This strategy is intended to reduce the amount of undeveloped land needed to meet the City's future housing and jobs needs. In addition, the proposed General Plan Update policy provisions and its Land Use Diagram require the city to maintain urban boundaries and to provide for growth with minimal outward expansion of the city's boundaries. Thus, growth accommodated under the proposed General Plan Update would be confined to the immediate Chico area and would avoid the growth effects of sprawl development patterns, such as the loss of biological resources. Furthermore, the federal Endangered Species Act (FESA), the California Endangered Species Act (CESA), and the California Fish and Game Code protect special-status species through regulatory permitting procedures that include mitigation and compensation

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requirements. Implementation of these requirements, along with the proposed General Plan Update policies and actions described under Impacts 4.10.1 through 4.10.3 in Section 4.10, Biological Resources, would reduce the proposed General Plan Update's contribution to cumulative biological resource impacts. However, the extent of loss of sensitive and/or critical habitats that the proposed General Plan Update would contribute to the regional loss of these resources is considered considerable. It is anticipated that the eventual implementation of the proposed Butte County Habitat Conservation Plan would address and mitigate regional biological resource impacts. However, this plan has yet to be adopted. Thus, this impact is considered **cumulatively considerable** and **significant and unavoidable**.

CULTURAL AND PALEONTOLOGICAL RESOURCES

Cumulative Impacts on Historic Resources, Prehistoric Resources, and Human Remains

Impact 4.11.4 Implementation of the proposed General Plan Update, in addition to existing, approved, proposed, and reasonably foreseeable development in the region, could result in cumulative impacts to cultural resources in the region.

As discussed under Impact 4.11.1 and 4.11.2 in Section 4.11, the proposed General Plan Cultural Resources and Historical Preservation Element contains several policies and actions that would assist in reducing potential cumulative impacts to historical resources, prehistoric resources, and human remains throughout the Planning Area. General Plan Update Action CRHP-1.1.6 requires that conditions of approval for future proposed development projects to include best management practices that protect cultural and historic resources. Future discretionary approvals that could result in the potential disturbance of paleontological resources will be subject to individual review of potential impacts under a separate CEQA document. General Plan Update Policy CRHP-2.1 requires the city to integrate the values of historic preservation with infill development and adaptive reuse and Policy CRHP-2.3 limits the demolition of historic resources to an act of last resort. In addition, Section 7050.5(b) of the CHSC specifies protocol when human remains are discovered on a project site, while Public Resources Code Section 21083.2 includes requirements for activities that preserve unique archeological resources in place in an undisturbed state. Future environmental and discretionary review of development or redevelopment projects under the proposed General Plan Update would ensure that the project's contribution to cumulative impacts would be **less than cumulatively considerable**.

Cumulative Impacts on Paleontological Resources

Impact 4.11.5 Implementation of the proposed General Plan Update, in addition to existing, approved, proposed, and reasonably foreseeable development in the region, could result in cumulative impacts to paleontological resources in the region.

Implementation of the proposed project, in combination with cumulative development in the surrounding region, would increase the potential to disturb known and undiscovered paleontological resources in the region. However, during implementation of the current General Plan, little, if any impacts have occurred to paleontological resources. While multiple impacts may occur during the implementation period of the General Plan Update, cumulative impacts are unlikely. Cumulative impacts that may occur would be reduced to **less than cumulatively considerable** levels by implementation of proposed General Plan Action CRHP-1.1.6, which requires that conditions of approval for a proposed development project would have to include best management practices that protect cultural resources.

PUBLIC SERVICES AND UTILITIES

Cumulative Demand for Fire Protection and Emergency Medical Services

Impact 4.12.1.3 Implementation of the proposed General Plan Update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in Butte County, would increase the demand for fire protection and emergency medical services and thus require additional staffing, equipment, and related facilities under cumulative conditions. The provision of these facilities could result in environmental impacts.

Project-level CEQA review of future fire protection/EMS facilities, along with compliance with the California Fire Code, would ensure that cumulative environmental impacts associated with the construction of new fire protection and emergency medical response services facilities to support community growth would be considered **less than cumulatively considerable**.

Cumulative Demand for Law Enforcement Services

Impact 4.12.2.2 Implementation of the proposed General Plan Update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the CPD service area, would increase the demand for law enforcement services and thus require additional staffing, equipment, and facilities, the construction of which could cause significant environmental impacts.

Future law enforcement facilities projects would be subject to project-level CEQA review at such time as an application for a project was submitted to the appropriate agency. Project-specific environmental review would identify and mitigate cumulative environmental impacts. Therefore, the proposed General Plan Update's contribution to the continued provision of law enforcement services in the cumulative setting would be considered **less than cumulatively considerable**.

Cumulative Schools Impacts

Impact 4.12.3.3 Population growth associated with implementation of the proposed General Plan Update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development in the cumulative setting, would result in a cumulative increase in student enrollment and require additional schools and related facilities to accommodate the growth.

As discussed under Impact 4.12.3.1 and Impact 4.12.3.2 In Section 4.12, Public Services and Utilities, current state law requires that the environmental impact of new development on grade school facilities is considered fully mitigated through the payment of required development impact fees. All new development associated with the proposed General Plan Update would be required to pay the applicable development impact fees. Furthermore, any significant expansion of school facilities or development of new school facilities (grade school and post-secondary) would be subject to the appropriate CEQA environmental review, which would identify any site-specific impacts and provide mitigation to reduce those impacts. Therefore, cumulative impacts on school facilities (grade school and post-secondary) are considered **less than cumulatively considerable**.

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Cumulative Water Supply Impacts

Impact 4.12.4.3 Implementation of the proposed General Plan Update, in combination with other existing, planned, proposed, approved, and reasonably foreseeable development within the cumulative setting, would increase the cumulative demand for water supplies and related infrastructure.

Implementation of the proposed General Plan Update, as well as future project-level CEQA review, would require the city to ensure that new development would not proceed without adequate water supply and necessary infrastructure. Build-out of the proposed General Plan Update directs the protection of groundwater recharge areas and would result in increased water use efficiency in the Planning Area as discussed under Impact 4.12.4.2 in Section 4.12, Public Services and Utilities. In addition, proposed General Plan Update policies and actions include requirements for conservation measures that would further reduce the proposed General Plan Update's contribution to cumulative water supply impacts. Cal Water, as well as the BCDWRC, is actively working to manage and conserve groundwater and maintain groundwater levels in the cumulative setting. For example, the Butte County Groundwater Management Ordinance includes the development and monitoring of basin management objectives to maintaining groundwater levels adequate to sustain municipal, agricultural, and domestic use. In addition, the Butte County Integrated Water Resource Plan discusses current and future water demands and water resource management options and the Butte County Groundwater Management Plan includes groundwater management objectives. Therefore, as it is anticipated that groundwater supply would be available to serve cumulative development without overdraft of the basin, this impact is considered **less than cumulatively considerable**.

Cumulative Wastewater Service Impacts

Impact 4.12.5.3 Implementation of the proposed General Plan Update, along with other existing, planned, proposed, approved, and reasonably foreseeable development within the cumulative setting, would contribute to the cumulative demand for wastewater service. However, implementation of proposed General Plan Update policy provisions and continued implementation of City standards would ensure adequate wastewater facilities are provided.

As described under Impact 4.12.5.2 in Section 4.12, Public Services and Utilities, proposed General Plan Update policies require that wastewater conveyance and treatment capacity and infrastructure be available in time to meet the demand created by new development. Proposed policies also require monitoring and conservation that would serve to reduce demands placed on the sewer system capacity and ensure that capacity would not be exceeded. Therefore, the proposed General Plan Update would not contribute to cumulative wastewater infrastructure impacts, and this impact is considered **less than cumulatively considerable**.

Cumulative Solid Waste Impacts

Impact 4.12.6.3 Implementation of the proposed General Plan Update, along with other existing, planned, proposed, approved, and reasonably foreseeable development in the region, would result in increased demand for solid waste services.

Implementation of General Plan policies and actions as discussed under Impact 4.12.6.1 in Section 4.12, Public Services and Utilities, would reduce the proposed General Plan Update's contribution to cumulative solid waste generation. Subsequent development in other areas of the region would also be subject to waste reduction programs consistent with Public Resources Code, Section 42900-42927. In addition, adequate landfill capacity would be available under cumulative conditions to meet the needs of the City of Chico and surrounding region through 2030. Therefore, the proposed General Plan Update would not contribute significantly to cumulative solid waste impacts, and this impact is considered **less than cumulatively considerable**.

Cumulative Demand for Electrical, Natural Gas, and Telecommunications Services

Impact 4.12.7.2 Implementation of the proposed General Plan Update, along with other existing, planned, proposed, approved, and reasonably foreseeable development, would contribute to the cumulative demand for electrical, natural gas, and telecommunications services and associated infrastructure that could result in a physical impact on the environment.

Since future energy-related projects would be reviewed for project-level environmental impacts and the majority of this infrastructure would be collocated and constructed concurrently with other utilities within roadway rights-of-way to lessen or eliminate potential environmental effects, the proposed General Plan Update's contributions to the continued provision of electrical, natural gas, and telecommunications services and infrastructure in the cumulative setting would be considered **less than cumulatively considerable**.

Cumulative Park and Recreation Demands

Impact 4.12.8.2 Implementation of the proposed General Plan Update, along with other existing, planned, proposed, approved, and reasonably foreseeable development, would increase the use of existing parks and would require additional park and recreation facilities within the cumulative setting, the provision of which could have an adverse physical effect on the environment.

Policies and actions included in the General Plan Update support continued cooperation with CARD and other agencies (such as the CUSD, CSU Chico, Butte College) to provide parks and recreation facilities that offer recreation opportunities for the community (Policy PPFS-1.1). To that end, future development projects would be required to pay development impact fees for park facilities on behalf of CARD and the city in order to fund the acquisition and development of neighborhood and community parks and community use facilities, as well as open space, needed as a result of new development (Action PPFS-1.1.2). These fees and policy provisions would ensure that the city would adequately provide for park and recreation needs for residents and environmental review of new development would mitigate any environmental impacts of park and recreational facilities. Further, the Special Planning Areas (SPAs) include the provision of parks and open space, and Action PPFS-1.1.5 directs the City to include CARD as part of early project review for SPAs and larger subdivision proposals. Therefore, the proposed General Plan Update would have a **less than cumulatively considerable** impact on parks and recreation services.

5.0 CUMULATIVE IMPACTS

VISUAL RESOURCES AND AESTHETICS

Cumulative Impacts to Scenic Vista, Scenic Resources, Existing Visual Character, and Light and Glare

Impact 4.13.5 Implementation of the proposed General Plan Update, in combination with other reasonably foreseeable development projects within Butte County, would contribute to the alteration of the visual character of the region, impacts to scenic vistas, and increased glare/lighting.

As discussed under Impacts 4.13.1 through 4.13.4 in Section 4.13, the city's proposed and existing policy and regulatory framework (Municipal Code, Design Guidelines Manual) provides a comprehensive approach to reducing the visual prominence of new development, adverse impacts to existing scenic vistas, and substantial increases in light and glare in the Planning Area. Even so, new development and redevelopment in the Planning Area would contribute to other similar impacts resulting from development in the larger Butte County region. Even with incorporation of smart growth principles and other mitigation, the proposed General Plan Update would still contribute to significant cumulative impacts associated with alteration of the visual character of the region, impacts to scenic vistas, and increased glare/lighting in the region. No additional mitigation measures are available to offset these impacts. Therefore, this impact is considered **cumulatively considerable** and **significant and unavoidable**.

ENERGY AND CLIMATE CHANGE

Generate Greenhouse Gas Emissions that May Have a Significant Impact on the Environment or Conflict with Applicable Adopted Reduction Measures

Impact 4.14.2 Implementation of the proposed General Plan Update would be consistent with the goals of AB 32 (Health and Safety Code Sections 38500, 38501, 28510, 38530, etc.). However, it could still result in greenhouse gas emissions that may further contribute to significant impacts on the environment.

Implementation of relevant policies and actions from the proposed General Plan Update and associated adoption and implementation of the upcoming Climate Action Plan (CAP) is anticipated to mitigate greenhouse gas (GHG) emissions projected for build-out conditions consistent with the City's GHG reduction goal of 25 percent of 1990 levels by 2020 as well as state efforts to reduce GHG emissions. However, the CAP has not been finalized at this time and all of its reduction measures are not currently known. Furthermore, while the proposed General Plan Update would improve GHG emission per service population, GHG calculations predict emissions in excess of the BAAQMD threshold and would still result in a net increase in GHG emissions. Thus, this impact is considered **cumulatively considerable** and **significant and unavoidable**. However, it should be noted that the environmental effects of climate change are gradual and, as such, it is not anticipated that substantial changes in the environment resulting from climate change would impact the City within the 20-year timeframe of the proposed General Plan.