

Post Camp Fire Regional Population and Transportation Study

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Final Report

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FEHR  PEERS

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Table of Contents

Introduction	3
Study Purpose and Objectives.....	3
Key Findings	4
Travel and Migration Key Findings	4
Vehicle Activity.....	4
Travel Patterns and Habits	4
Demographics, Businesses, and Economics	5
Transit and Non-Motorized Plan	7
Transit Service Plan	7
Non-Motorized Plan.....	8
Public Outreach	8
Project Integration and Next Steps	9

Appendices

Appendix - A – Report of Pre and Post Camp Fire Conditions and Regional Growth Forecast

Appendix - B – Transit and Non-Motorized Plan

Appendix - C – Public Outreach

Introduction

This report serves as a summary for the Post Camp Fire Regional Population and Transportation Study, combining previous deliverables reviewed by the public and stakeholder groups into a single document. The report is organized into the following sections:

- **Introduction:** Defines the purpose and objectives of the Study.
- **Pre and Post Camp Fire Conditions:** Summary of traffic volumes, travel surveys, household and employment migration and future forecasts.
- **Transit and Non-Motorized Plan:** Summary of the updated Butte County Transit and Non-Motorized Plan to consider the future development forecasts and public feedback.
- **Public Outreach:** Summary of the public outreach that occurred over the course of the project.
- **Project Integration and Next Steps:** Identifies recommendations and next steps to integrate the data, findings, forecasts, and updated plans.

Study Purpose and Objectives

Following the Camp Fire in November 2018, the estimates of population, housing, land use, and travel in Butte County were unknown. In addition, the existing long-term forecasts of short and long-range planning documents are likely no longer applicable to the region.

As the federally-designated metropolitan planning organization and state-designated regional transportation planning agency, BCAG prepared the Post Camp Fire Regional Population & Transportation Study to analyze regional population, housing, employment, and traffic data for pre 2018, post 2019/20, and future time periods. The study also developed several scenarios for population and travel for 2025, 2035, and 2045 based on existing research, empirical data, and policies available at the time of study development. In addition, an update of the Butte County Transit and Non-Motorized Plan was completed with the collected data. The study will inform the 2024 RTP/SCS and various land use, transportation, and housing plans and projects beyond the best available data used in development of the 2020 RTP/SCS.

The Objectives of the study were to:

- Update regional travel data;
- Develop population, housing, and employment forecasts and associated travel patterns;
- Inform 2024 RTP/SCS with updated data and forecasts; and
- Update the Butte County Transit and Non-Motorized Plan.

Key Findings

This section focuses on identifying the key findings related to the Camp Fire's impacts on travel patterns, economics, and demographics across Butte County, update to the Transit and Non-Motorized Plan, and a summary of feedback received through the public outreach process.

Travel and Migration Key Findings

From a transportation perspective, most of Butte County can be considered low density and/or rural, which has a direct impact on transportation and mobility. There are limited options for using public transit, except within the City of Chico, and in many areas, it is physically difficult to walk or bike between destinations due to limitations in the pedestrian and bicycle network, including lack of sidewalks, complete bicycle lanes, etc. Historically, most people drive to get from one place to another within the county. The detailed report contained the full summary of the data found in the subsequent summary below, including raw data tables, charts, and maps, can be found in **Appendix A**.

Vehicle Activity

The findings seem to support what one would expect following a major natural disaster that literally destroyed most of a town. When comparing pre Camp Fire (2017 and 2018 data) to post Fire (2019) data, there were major shifts in vehicle activity within the County. Traffic levels were up in the primary surrounding communities: 11% in the Chico, 10% in Biggs, 17% in Gridley, and 15% in Oroville/Thermalito. Not surprisingly, traffic volumes in Paradise and Magalia decreased by 43%. Vehicular travel between Butte County and neighboring counties increased by 15% in both directions (contractors, supplies, people commuting to temporary housing and jobs, etc.). Cars were still the dominant mode of travel after the fire and will likely remain so without significant capital expenditures for increased transit service plus improvements to bicycle and pedestrian facilities.

Travel Patterns and Habits

Travel patterns were evaluated based on surveys, both in-person and online, of large employers and the general population, anonymized cellular data, and registered home and business addresses, as summarized below.

Large Employer Commute Surveys

Over 150 employees at large companies were surveyed to gather information about their commute patterns. Highlights survey results are noted below. Overall, the need to make more than one stop and the difficulty of finding a carpool/vanpool results in the large single-occupant commute.

Butte County Travel Survey

The Butte County Travel Survey was administered online and at pop-up events to collect information from the public on commute patterns and household demographics. Of those surveyed (66), nearly all were employed and drove alone for their commute of 20 minutes or shorter. Personal safety, vehicle speeds, and the lack of a complete active transportation network were the main reasons for not walking or biking. This is consistent with the employer survey where most people drive and might walk or bike if they felt safe in terms of personal security and from fast moving vehicles or lack of infrastructure.

Cellphone Data¹

The data showed total weekday trips in Butte County decreased marginally by 6% and 18% on weekends. Trips entering and trips exiting Butte County from other counties on weekdays increased by 14% and weekend trips entering Butte County decreased by 9%. This shift is most likely due to a decrease in recreation travel into or out of the county, and/or a decrease in trips by those who moved out the county and needed to travel in/out of the county less frequently for their activities on the weekend. Overall trips within Butte County decreased by 9%, but trips between Chico and unincorporated areas of Butte County and Oroville saw significant increases.

Demographics, Businesses, and Economics

The residential and business location datasets consisted households and businesses from 2018 (pre Fire) and 2019 (post Fire) from InfoGroup. Individual residents, families, and businesses were provided unique identifiers, which were used to investigate post Fire changes. This information along with parcel data and building permits were used to evaluate trends and develop revised growth forecasts.

Families and Residents

Pre- and post-fire records of households including detailed addresses, homeownership status, tenure, home values, household sizes, years of construction, etc., were utilized to understand the status of the county population. Records of 193,596 households in Butte County were listed in the 2018 dataset while records of 200,906 households in Butte County were listed in the 2019 dataset. 38,322 families (20%) – 41,935 residents – that were listed in the 2018 data were not listed in the 2019 data. The American Community Survey (ACS) product from the Census for 2019 estimates 86,209 households consisting of 219,186 residents.

¹ Travel datasets from anonymized cellphone data representing trip counts between census blocks and organized by time of day, weekend vs weekday, and trip purpose, were collected in September-October 2018 and September-November 2019 by Teralytics.

Migration

The largest migrations occurred from Chico (38%), Paradise (32%), Oroville (15%), and Magalia (8%) to cities outside Butte County. Primary relocation destinations include Sacramento County (30%), Placer County (24%) and Sutter County (21%). A substantial number of inter-city migrations was also observed from Paradise to Chico (66%). Other notable migrations within Butte County include Paradise to Oroville (16%) and to Unincorporated County (8%).

Changes in Business

There were no significant changes in business types (based on percentage of businesses) following the fire with one exception: Health Care and Social Service-related businesses declined by a few percentage points. Businesses that had to relocate tended to go to Sutter County. New businesses that have started post fire have been mostly in Chico and Oroville.

Buildings (residential and commercial)

As expected, almost all residential and commercial reductions in Butte County occurred in Paradise as a direct result of the fire. Single-family structures within Paradise were reduced by 85%, multi-family structures were reduced by 71%, and mobile homes were reduced by 96%. Some reconstruction did begin in Paradise in 2019 including many temporary residential units (648).

Housing and Employment Forecast

Overall, there was a reduction in the total county housing count for each of the forecast years when compared to the 2020 RTP/SCS. This is due in part to the revised population projections from the California Department of Finance (DOF) for the county also seeing a reduction. However, housing trends do have projections returning the levels predicted in the 2020 RTP/SCS by the 2045-forecast year. In addition to the countywide reduction, Paradise is expected to have slower growth in both near and long-term forecasts, with Chico's growth making up the difference. The rapid increase in population in Chico, low vacancy and higher than normal persons per housing units are drivers for this increased growth. While some of this growth is temporary displacement from the Camp Fire, it is expected that some temporary growth will become permanent for residents who decide not to re-build and find permanent housing in Chico, or elsewhere within the county. Increased building costs and homeowners' insurances costs are expected to influence the re-building efforts for low-income residents. Details can be found in **Appendix A** on pages 128 to 133.

Employment forecasts have been revised downward in comparison with the 2020 RTP/SCS. According to California Employment Development Department (CA EDD) annual average data, Butte County saw a reduction of 1,800 jobs between 2018 and 2019. Looking at current seasonally adjusted monthly totals published by CA EDD shows a reduction in jobs in April 2020 down to 68,000, due to COVID-19. Between April and September of 2020, jobs began trending upward to 73,100. Assuming the current trend in employed continues and the effects of COVID-19 dissipate in 2021, we forecast a return to 2018 employment total by the 2025 forecast year. Long-term employment was determined by extrapolating

Butte Counties historical (1990 – 2020) year over year employment trend. Details can be found in **Appendix A** on pages 133 to 134.

Transit and Non-Motorized Plan

This section summarizes proposed service changes for B-Line services over the near- (by 2025) and long-term (by 2045) time horizons as part of the Butte County Transit and Non-Motorized Plan Update. These service plan proposals are informed by the existing transit service and market analyses, the planning framework, and input received during public and stakeholder outreach. The detailed existing conditions, planning framework, and revised reports with charts, tables, and maps can be found in **Appendix B**.

Transit Service Plan

The transit service plan was broken out into near-term and long term recommendations. Although most of the actions are with B-Line authority, some of the actions will be implemented in coordination with local jurisdictions or private partnerships.

Near-Term Service Plan (by 2025)

Based on the previous 2015 Transit and Non-Motorized Plan and feedback from the public, the near-term service plan strives to remain within existing B-Line fixed-route operating resources (annual revenue hours and peak vehicle requirement).

In Chico, the near-term service plan strives to increase levels of service on B-Line routes that exhibit strong productivity and financial effectiveness, particularly the student shuttles (Routes 8 and 9). Additionally, the near-term plan strives to streamline route alignments for services that experience reliability issues to reduce running times, improve schedule adherence, and enhance service reliability. Finally, the near-term plan extends weekday service spans to provide uniform 6 AM to 8 PM service across all Chico local routes, providing flexibility for a greater variety of trip-making via transit for trips within Chico.

The near-term transit service strategy for Oroville aims to maximize service coverage to residential areas and key destinations using the limited operating resources currently allocated to Oroville. This approach maximizes opportunities for transit dependent and disadvantaged populations in Oroville to utilize transit for daily travel needs.

The near-term service strategy for regional routes focuses on maintaining existing service levels for intercity routes connecting more isolated Butte County communities. Additionally, the near-term service plan considers the potential for service restoration in Paradise and surrounding communities that have been affected by recent wildfires, including the Camp Fire and the North Complex Fire.

Long-Term Service Plan (to 2045)

The long-term service plan considers future transit markets, travel patterns, and ridership potential that were revealed in the housing, population, and employment forecasts. Key features of the long-term

service plan include transit capacity increases on the main Chico trunk line corridor as well as service expansions into new development areas. Expanded weekend service is also recommended, which was mentioned by stakeholders at multiple outreach events.

The long-term service plan for Chico includes the establishment of a high-capacity transit corridor between the Chico Mall area, Downtown Chico, Chico State, Esplanade, and North Valley Plaza along key north-south roadways.

Transit market characteristics in Oroville are not expected to substantially change between the 2021 and 2045 planning horizons. Thus, the near-term service plan for Oroville applies to the long-term service plan as well. One potential change could be an expansion of the citywide on-demand rideshare service into new development areas in Oroville (and/or increased service levels), if it is implemented during the near-term planning horizon and found to meet the mobility needs of residents, employees, and visitors.

The long-term service plan for regional routes is identical to the near-term plan. Other potential service improvements for consideration include an expanded employer vanpool program, expanded/enhanced park and rides, and a Chico to Sacramento commuter bus service (which BCAG is in the process of studying in greater detail).

Non-Motorized Plan

Although B-Line has authority over the transit system, most of the actions relating to pedestrian and bicycle (non-motorized) actions that will enhance overall travel and specifically transit related travel will be implemented by local jurisdictions or private partnerships. The summary of recommendations for non-motorized travel focuses on improving walking and bicycling connections to transit, prioritizes non-motorized improvements currently identified in relevant local planning documents, and will require continued coordination with local jurisdictions who own and operate their transportation facilities.

Public Outreach

Gathering stakeholder and community feedback was essential to identify, define, and prioritize values in this Study. BCAG established a Project Development Team to review key deliverables which included key stakeholders, agency staff, and local representatives comprised of the BCAG Planning Directors Groups and Transportation Advisory Committee. The Study also solicited feedback from the community through pop-ups, workshops, surveys, and informational videos to present the results of the Study. The detailed summary of public outreach including charts, tables, and maps can be found in **Appendix C**.

Pop-up events were organized in November and December 2019 to introduce the Study and gather input on how to improve walking and biking access to transit. Similar to the results found in the other surveys discussed in the sections above, improving infrastructure (facilities and parking) and personal safety would encourage more active transportation, and improving the access and quality of service (frequency and hours of operation) would encourage more transit usage. The COVID-19 pandemic required virtual

workshops in December 2020 and February 2021 that were well attended by key stakeholders, agency staff, and local representatives.

Stakeholders and community members provided responses through verbal, written, and on-line participation surveys to assist in identifying the areas for enhanced services that would allow them to travel by B-Line services more often and/or easier. The highlights of the feedback relating to transit service and/or access to transit included:

- Added weekend service;
- Extended operating hours;
- Improved or added bus stop amenities;
- Improved or added bicycle facilities including bicycle racks/lockers;
- Expanding service areas, especially in rural areas.

Project Integration and Next Steps

The data collected pre and post Camp Fire serve as a reference point for development and the resulting travel patterns. The feedback from the public directly influenced the Transit and Non-Motorized Plan, some of which were suggested to be implemented when certain ridership or unmet demand conditions are observed. As such, it is recommended that as the changes to the transit system are implemented and the rebuilding continues, that tracking the performance of fixed routes, considering on-demand services, and monitoring rider satisfaction be conducted.

For integrating the outcomes of this study into future plans, both the demographics at the parcel and traffic analysis zone and the transit route and service frequency are integrated into the travel demand model input files. With events beyond the scope of this project such as COVID-19 and additional fires, it is recommended that the growth forecasts be revisited prior to the next RTP/SCS.