

BUTTE FIRE ROAD RESTORATION PLAN



County of Calaveras

Department of Public Works

Board of Supervisors - April 2019

INTRODUCTION

On September 9, 2015 a PG&E power line located east of Jackson came into contact with brush and sparked flames that eventually killed two people, destroyed a thousand structures, and burned nearly 71,000 acres. The Butte Fire has had devastating impacts on Calaveras County, and its citizens as communities continue to feel the effects of the fire more than three years later.

On June 22, 2017, Sacramento Judge Allen Sumner ruled that because "...the Butte Fire was caused by a public improvement as deliberately designed and constructed by Pacific Gas and Electric Company," the company was liable for all property damages caused by the fire. In late 2018, PG&E and Calaveras County agreed on a \$25.4 million dollar settlement for economic damages stemming from the Butte Fire. In all, more than \$20 million dollars is available for use by Calaveras County.

Recent feedback from the Board of Supervisors and the community reflects an interest in investing a portion of the settlement funding to the restoration and rehabilitation of roads and infrastructure damaged or destroyed by the Butte Fire. The Board has directed Public Works to develop a comprehensive road restoration plan for the use of these funds.

This Plan reflects efforts by Public Works to develop a comprehensive response to this request and provides transparency and accountability with the Board and public. Over the next three years, Public Works proposes a \$14.6 million dollar plan to return roads and infrastructure in the fire area to a condition at or above their condition prior to the Butte Fire.

SUMMARY OF DAMAGE

Public roads and infrastructure were significantly affected by the Butte Fire. In all, approximately 85 miles of county maintain roads were affected by the fire and identified for repairs as part of this plan. Since the fire, debris and fallen trees continue to affect county infrastructure.

Drainage continue to be a significant concern within the Butte Fire area. This includes roadside drainage ditches, culverts, drop inlets, and other facilities meant to direct water in an orderly and efficient manner. Road side ditches have been inundated with fire related debris, affecting drainage patterns and causing localized flooding and road impacts. Damaged culverts can cause water to infiltrate into the surrounding road base, affecting road integrity through issues like potholes and sinkholes.

Potholes and pavement conditions directly affects drivers in and around the fire area. Poor road conditions can damage vehicles and create discomfort for all road users. Poor road conditions can also impact road safety and impact quality of life. Poor road conditions can include potholes, pavement cracking, localized pavement failures, delamination, rutting, and a host of other issues and concerns.

Roadside tree, vegetation, and brush remaining after the initial debris removal program continue to create hazards. These materials and the subsequent new growth after the Butte Fire continues to affect county roads, impacting drainage and pavement conditions and affecting road safety by limiting sight distance, creating roadside obstacles, and reducing or eliminating road recovery area. Brush and vegetation debris also impacts snow storage capacity in higher elevation areas during the winter months.

Much of the county's **signage and striping** infrastructure was damaged or destroyed by the fire. Signage and striping help provide predictable and accurate information to road users and improve road safety.

Unpaved roads were also damaged by the fire and the resulting impacts from oversized vehicles responding to the fire and cleanup efforts. While unpaved roads are not quite as expensive to repair as paved roads, dirt roads require far more frequent maintenance. Unpaved roads are also significantly more affected by drainage issues and can cause significant rutting, potholes, and other drivability issues.

Hillside slope stability has also been impacted, as the lack of vegetation has resulted in erosion issues that impact soil stability and integrity. Some minor **bridge and guard rail damage** also occurred during the Butte Fire.

SUMMARY OF PROPOSED RESPONSE

Due to various impacts on county maintained infrastructure, there are a corresponding myriad of efforts necessary to restore the roads to a pre-fire condition. A comprehensive approach to deliver a repair program of this magnitude requires a sizeable investment in manpower, equipment, materials, and close cooperation with the local construction community. It is our intent to complete this work over a period of three years. Current road staffing levels and equipment (quantity and condition) are barely sufficient to meet the daily demands of maintaining the county's infrastructure. If this Plan is adopted by the Board, we must be sure that the additional work does not compromise our ability to deliver services to the rest of the County. It is in this context that we propose the following actions:

Proposed Action – Hiring of Seasonal Summer Employees

Much of the proposed work requires extensive labor. Current road crew staff levels are insufficient to meet the increased demand expected from these efforts. The cleanup activities will primarily be focused from late spring to early fall months. Hiring approximately eight (8) seasonal summer temporary employees dedicated to Butte Fire infrastructure repairs will help meet the increased labor demands while minimizing impacts to the road fund and other Public Works functions and duties throughout the County.

Proposed Action – Equipment Purchases

Both temporary and permanent employees need additional vehicles and equipment to support these efforts. Light duty crew cab pickups are necessary to transport employees to the work site each day and for additional inspection efforts by Public Works employees. Additional dump trucks are necessary to transport away site debris and deliver repair materials like base rock or road culverts. Heavier equipment like backhoes and a skid steer will help expedite the necessary repairs, and a new asphalt zipper / asphalt grinder will allow staff to remove and repair damaged pavement. Due to the length of time and frequency of use to support the considerable maintenance efforts, it is beneficial to purchase equipment that will be utilized throughout the project duration.

Proposed Action – Road Preparation Work

Damaged roads – both paved and unpaved – require extensive preparation work in advance of paving or resurfacing improvements. Localized pavement failures must be dug out and repaired. Rutting and cracking must be removed. Failed culverts must be replaced. Soil issues must be properly stabilized.

Adjacent tree, brush, and vegetation debris must be removed. This work will be primarily completed through permanent and seasonal staff and supported through the purchase of locally sourced materials and supplies. Unpaved road repairs and culvert replacements are also included under this category.

Proposed Action – Paved Road Construction

The majority of the proposed costs are included in construction efforts to resurface or repave various county roads. Construction efforts include resurfacing efforts like slurry and chip seals and microsurfaces to help extend the life of pavements that are in a fair or better condition. For roads in poor condition that cannot be resurfaced through less expensive techniques, pavement overlays, cold in-place recycling, or full depth reclamation help restore damaged roads to a new condition.

Proposed Action – Engineering Design and Support

Engineering will help support road maintenance efforts – specifically for road stabilization needs, drainage calculations, equipment and materials procurement, and with public works construction bidding procedures and bid support. Engineering support is intended be provide in-house, although it is likely possible that specialized services like geotechnical engineering services will be provided from our on-call professional engineering services consultants.

Proposed Action – Construction Management and Inspection Services

Road resurfacing and paving projects will require construction management and inspection services to oversee construction efforts. These services will likely be provided by one of the county’s on-call construction management and engineering inspection services firms.

ROAD RESTORATION TIMELINE

As proposed, the Plan is expected to continue through summer 2022. Early efforts will focus on repairs and resurfacing on major collector roads. As efforts on these roads are completed, additional efforts will commence on lower volume county maintained roads. While road crews are conducting repairs on major roads in various geographic areas, it may be beneficial and cost-effective to perform additional repairs on other nearby local roads. A detailed list of proposed roads is included in Attachment A.

The following outlines a proposed timeline for events and activities within the proposed plan

2019

March 26, 2019 – Board approves proposed plan

Spring 2019 - County advertises seasonal employee positions. County also begins procurement of necessary equipment and materials contracts to support repair activity.

Summer / Fall 2019 – Repair work during this first season focuses on major roads within the Plan area. Vegetation and brush removal, drainage improvements, and preliminary pavement repairs will be completed during this time. No pavement or resurfacing projects will begin in 2019 as our initial efforts will be focused on debris removal, drainage repairs, and prep work in anticipation of 2020 construction efforts.

2020

Winter 2020 – The Board of Supervisors approves larger projects as part of the CIP adoption process. Resurfacing plans and specifications will be approved by the Board prior to advertisement. The County will advertise for seasonal employee positions and begin procurement of necessary equipment and materials contracts.

Spring 2020 - Work continues on major roads within the plan area to prepare for summer resurfacing projects. Pavement patching and crack sealing along with final repairs necessary for resurfacing work.

Summer / Fall 2020 – The pavement resurfacing project will begin on major roads. Repair work also begins on secondary collector roads within the plan area. Vegetation and brush removal, drainage improvements, and preliminary pavement repairs commence on these roads in anticipation of 2021 construction efforts.

2021

Winter 2021 – The Board of Supervisors approves larger projects as part of the CIP adoption process. Resurfacing and/or paving plans and specifications will be approved by the Board prior to advertisement. The County will advertise for seasonal employee positions and begin procurement of necessary equipment and materials contracts.

Spring 2021 - Work continues on local roads within the plan area to prepare for summer resurfacing projects. Pavement patching and crack sealing along with final repairs necessary for resurfacing work..

Summer / Fall 2021 - Pavement resurfacing and/or paving project(s) will begin on local roads. Repair work also begins on all remaining roads within the plan area. Vegetation and brush removal, drainage improvements, and preliminary pavement repairs commence on these roads in anticipation of final 2022 construction efforts.

2022

Winter 2022 – The Board of Supervisors approves all remaining larger projects as part of the CIP adoption process. Resurfacing and/or paving plans and specifications will be approved by the Board prior to advertisement. The County will advertise for seasonal employee positions and begin procurement of necessary equipment and materials contracts.

Spring 2022 - If not completed by fall 2021, all remaining work within the plan area by county crews to prepare for summer projects. Pavement patching and crack sealing along with final repairs necessary for resurfacing and/or paving work. County will advertise for seasonal employee positions and begin procurement of necessary equipment and materials contracts if necessary.

Summer 2022 – All remaining pavement improvement work will begin on remaining roads in the Plan project will begin on major arterial and collector roadways. This work will be bid in accordance with establish project plans and applicable contracting procedures.

Fall 2022 – Any remaining project funds not utilized as part of the Plan will be brought back to the Board for final action.

SUMMARY OF PROJECT EXPENDITURES

The total projected expenditures over the lifetime of the project are \$14,600,000 and are itemized as follows:

TABLE 1: TOTALPROJECT EXPENDITURES*

| CATEGORY | AMOUNT | Description |
|--|----------------------------|---|
| Seasonal Employees | \$750,000 | Up to 8 additional summer temporary employees to provide labor for maintenance activities |
| Equipment Purchases | \$1,250,000 | Vehicles and heavy equipment purchases to complete proposed work |
| Prep Work | \$1,900,000 | All maintenance and prep work necessary to clear debris, materials and supplies, and prepare roads for improvements |
| Construction | \$9,000,000 | Improvements on paved roads |
| Engineering Support | \$150,000 | Engineering design support for road projects, including project administration |
| Construction Management and Inspection Support | \$250,000 | Construction inspection services during paving improvements |
| <i>SUBTOTAL</i> | <i>\$13,300,000</i> | <i>Subtotal of all construction activities</i> |
| Contingency (10%) | \$1,300,000 | Includes a 10% contingency for variances, unexpected repairs, and construction escalation costs between 2019 and 2022 |
| TOTAL | \$14,600,000 | Grand total amount not to exceed |

PROJECT ACCOUNTABILITY

There is an expectation of the Board and public that the programs and projects identified in this Plan will be delivered in a timely manner. In an effort to ensure continued Board and public feedback, construction projects funded through this Plan would be included in the annual Capital Improvement Program (CIP). Staff typically presents a draft CIP to the Board at the end of each calendar year in an effort to solicit feedback from the Board and public. Staff will utilize feedback to prepare a final CIP for Board approval early the following year. The final CIP will be the basis for the subsequent operating budget adoption process.

COMMUNITY ENGAGEMENT

We recognize the impact that this Plan will have on the local community. This work will cause delays to the traveling public and a nuisance to the residents living in these areas. We must always accommodate first responders during these activities, and local residents must have access to their homes. Efforts will be taken to minimize these impacts and to inform the community of maintenance and construction activities

in their area. Prior to Plan implementation, we plan to hold a community workshop at various locations that may include Rail Road Flat, Mountain Ranch, and West Point. Project schedules will be posted on our website, and notices sent to the media so the public can be notified of pending activity. The use of our electronic message signs will also help inform the public of pending activities. We are hopeful that the community recognizes that these restoration efforts are for their benefit and are willing to accept these short term inconveniences.

PROJECTS AND PROGRAMS NOT INCLUDED

In order to provide realistic expectations to the Board and public, it is worthwhile to mention efforts not included as part of this program.

- Tree removal on private property is not included as part of this Plan. Dead or dying trees on private property have previously been mitigated through other funding programs or options.
- Construction of new roads are not included in this Plan. These efforts are frequently complicated and create considerable division and conflict among residents. In addition, the use of eminent domain is frequently required for property owners unwilling to dedicated right of way for additional road construction.
- Improvements on private roads are also not included in this Plan. The use of public funds on private roads is not allowed by state law. In addition, the county does not have the legal right to perform work on private road without first obtaining permission from all private property owners with legal access rights to these private roads. There is also considerable liability the county could incur when performing work with public forces or through public contract on private property.
- Widening of existing roads is not included in this Plan. While some minor spot widening may be possible on a case-by-case basis, most rural county roads are operated and maintained through implied dedicated (prescriptive) easements. These rights typically only extend to the edge of county maintained pavement or shoulder. As a result, the county likely does not own the necessary right of way to widen many rural roadways. A discussion on minimum fire safe road widths is a worthwhile discussion, but has many of the same complications and concerns that occur with the construction of new roads.

While there may be considerable value in a discussion on regional emergency fire access and safety, these efforts frequently result in significant impacts to private property owners through the necessary acquisition of private property for public use and are inherently controversial. The Plan's primary purpose is to focus on restoration efforts that return county maintained roads and infrastructure to a reasonable condition.

CONCLUSION

The proposed Butte Fire Road Restoration Plan is a comprehensive effort to effectively program \$14.6 million dollars in available PG&E Settlement funding in the restoration and rehabilitation of county roads and infrastructure affected by the Butte Fire. The Plan includes the necessary labor, materials, supplies, equipment, engineering and inspection support, and construction funding necessary to improve many (if not all) county maintained roads. The Plan will prioritize major roads throughout the burn scar early, but will eventually improve many (if not all) roads by fall 2022. Larger construction improvement projects generated by the Plan will be incorporated into the annual CIP adoption process that allows input from both the Board of Supervisors and the public. Attachment A provides a more detailed list of roads and funding estimates.

Public Works welcomes any feedback or input from the Board or public on this proposed Plan.

ATTACHMENT A – BUTTE FIRE REHABILITATION

List of Roads, Activities, and Costs

