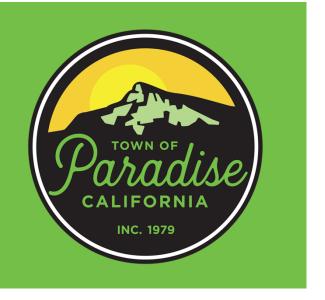
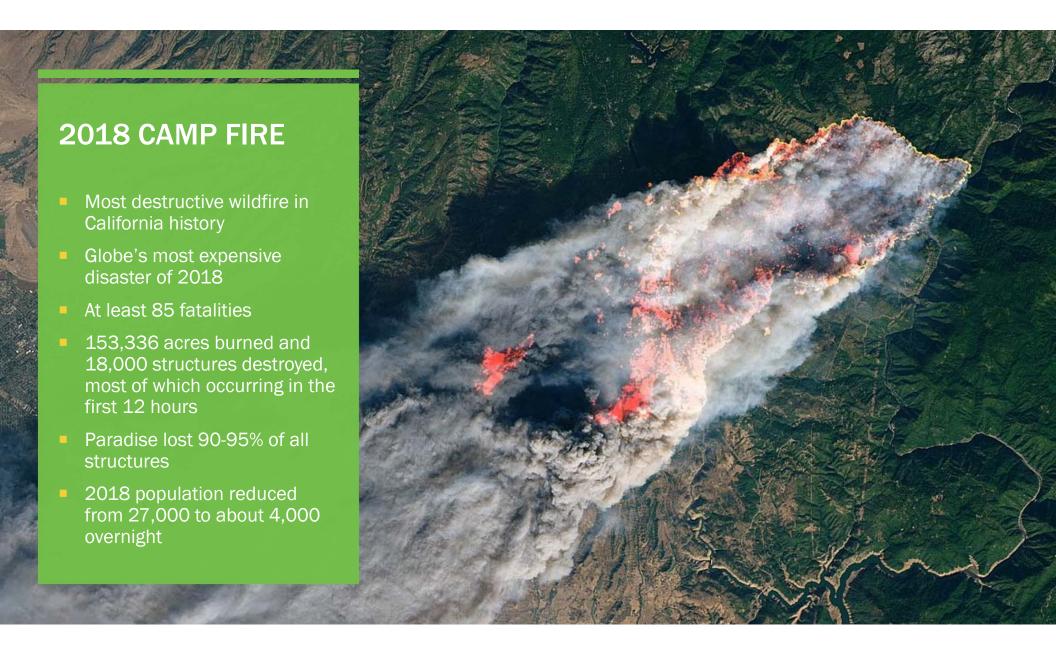
2018 CAMP FIRE RECOVERY & RESILIENCY EFFORTS

MARC MATTOX, PUBLIC WORKS DIRECTOR / TOWN ENGINEER

5/12/22







INFRASTRUCTURE ASSESSMENT

- Items we could see
 - Hazard trees
 - Fire debris
 - Road scars
 - Utility poles
 - Signs
 - Traffic Signals
 - Sidewalks

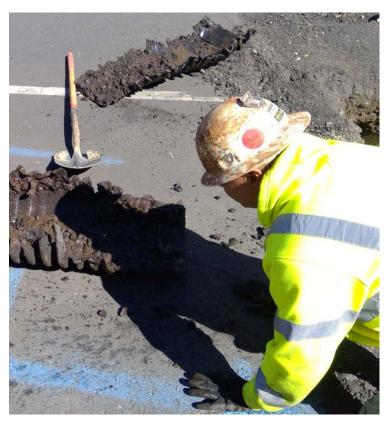


SAFETY ALERT: The Town of Paradise has discovered a creek culvert was compromised due to fire damage on Wagstaff Road at Clark Road. Please be advised that in addition to the closure of Wagstaff Road, crews are working to assess and identify additional culverts and roads within Town limits that may be compromised.



...

MELTED CULVERTS





TOWN EVACUATION ORDERS MAINTAINED





MORE MELTED CULVERTS



Figure 4 - Collapsed Culvert on Roe Road

As a wind-driven fire with low-flying embers, miniature fires were ignited inside open-ended culverts and, depending on the construction material type (HDPE, metal, etc.), completely burned out several pipes, collapsing and undermining the roadway...

LESSONS LEARNED: MORE RESOURCES IN ASSESSMENT



Town of Paradise Engineering 5555 Skyway Paradise, CA 95969 (530) 872-6291

September 21, 2020

Caltrans District 3 Office of Local Assistance Adam Belanger, ER Coordinator 703 B Street Marysville, CA 95901

Subject: EO On-System Culvert Repairs DAF No. SKM-PRDS-007-0 Revision Request

The Town of Faradise is respectfully requesting to revise DAF No. SIM-FBD-007-0 to include an additional ten (10) culterst that received emergency repairs post Camp Fis. Immediately following the 20-15 up Fise. doesnot of culterst were found to be destroyed during an initial assessment of damage. To Yown, one page (5) culterst initially located on federal-air roads that needed emergency repairs. Subsequent no. 15 or to entire Damage Assessment Report was completed and submitted to Calvans for review and approve to 1 s. 5.20 The DAF was approved for \$254.7460 in construction funds. The locations and cost.

Map Id	Location	CON_DATE	DAF	Contractor	Estando d Co.	ctual C.	Status
1	Pearson and College	12/3/2018	Original	Omni	5. 0.00	2,892.0	Original DAF
2	Wagstaff and Dolores	12/27/2018	Original	Vising	106, 83		Original DAF
3	Roe and Greg	2/5/2019	Drig	Visi	8,2.	\$8, 43.60	Original DAF
4	Pearson and Woodsmuir	1/23/2019	rigina	Visio	25 259	\$25,259.41	Original DAF
5	Clark and Cabernet	1/23/2019	inal	inon		\$15,717.40	Original DAF
						****	at thereens to

Between January 2019 and summer 20 modular abared the convert was plastic, it likely melted, the Town of Paradise engaged with GulDSS for usure of our strategy a Town-wide culvery/storm drain investigation. Galvans was mission-stars (1972) and the John of Paradise plants and ship hackages. The intent was to thilly determine all Camp Fire damages to the server of the convertible of this investigation, pipes could be unknowingly completely melted underground to this olabor yound indicators. The risk to public safety was immense as voids an develop and cause catastrops, used a failure or slowly undermine the roadway over time. A single collapse could be extremely dangerous to the width while.

Unfortunately, the CMOES/Caltrans/Town of Paradise investigation effort never fully materialized. This development occurred after my departure from the Town in July 2019. It was understood by all that additional damages will be discovered during the winter season and will require mitigation thereafter.

Following a few rain events in late 2019, public works staff located emergency culverts that required immediate repairs to protect public safety. Our Paradize Town Council formally declared these repairs as an emergency and directed staff to mitigate immediately. The locations and costs are summarized in the table below, annotated in blue.

MapId	Location	CON_DATE	DAF	Contractor	Estimated Cost	Actual Cost	Status
6	Valley View	3/16/2020	Revised	Visinoni	\$71,380.00	\$43,380.00	Emergency Resolution 19-40
7	Pentz and Vineyard	3/16/2020	Revised	Visinoni	\$14,375.00	\$14,375.00	Emergency Resolution 19-40
8	Pentz and Steams 1	3/16/2020	Revised	Visinoni	\$14,495.00	\$14,495.00	Emergency Resolution 19-40
9	Pentz and Stark	3/16/2020	Revised	Visinoni	\$22,830.00	\$22,830.00	Emergency Resolution 19-40
10	Pentz and Whitaker	3/16/2020	Revised	Visinoni	\$22,470.00	\$20,670.00	Emergency Resolution 19-40
11	Pearson and Recreation Drive 1	3/16/2020	Revised	Visinoni	\$10,405.00	\$10,405.00	Emergency Resolution 19-40
12	Wagstaff and Moss	11/12/2019	Revised	Omni	\$23,525.41	\$23,525.41	Emergency E-mail
13	Pearson and Recreation Drive 2	3/30/2019	Revised	Omni	\$32,892.00	\$32,892.00	Completed within 180 Days of Disaste
14	Pentz and Stearns 2	3/26/2020	Revised	Visinoni	\$12,315.00	\$12,315.00	Emergency Resolution 19-40
15	Billie and Skyway	In-Progress	Revised	Visinoni	\$20,995.00	\$20,995.00	Identified as a Hazard, Repair in Progre
					\$245,682,41	\$215,882,41	Additional EO Culverts Total

- In late 2019/2020, additional culverts were discovered to be missing
- Found evidence of fire damage
- Emergency repairs were made -> however, did not qualify as Emergency Opening work or Permanent Restoration
- Determined to be ineligible costs
- RECOMMENDATION: Assign more resources to assessments, video camera every storm drain line



©2019 URBAN DESIGN ASSOCIATES

QUICK PLANNING, FORWARD THINKING.

- Safer
- Better
- Stronger
- Welcoming
- Greener

LONG RANGE INFRASTRUCTURE RECOVERY PROJECTS

- FHWA: On-System Roads
- FHWA: On-System Signs
- FHWA: On-System Culverts
- FEMA: Off-System Roads
- FEMA: Off-System Culverts
- HMGP: Storm Drain Master Plan
- HMGP: Reseeding Plan
- HMGP: Early Warning System

- Pre-Fire Capital Budget
 - \$4 million annually
- Current Capital Budget
 - \$40 million annually
- Recently submitted \$800m in project applications through CDBG-DR Infrastructure Program, pending July 2022

CULVERT REPLACEMENT PROJECTS UNDERWAY

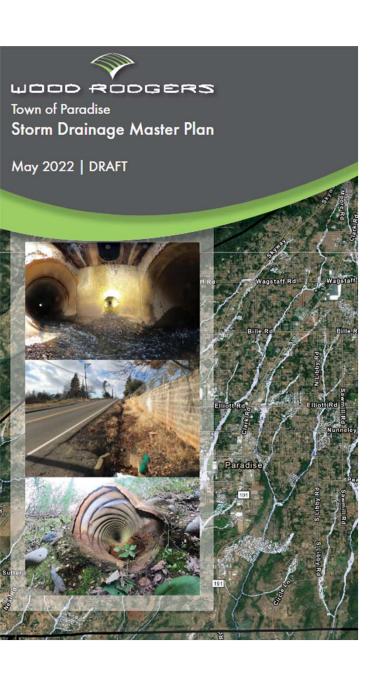








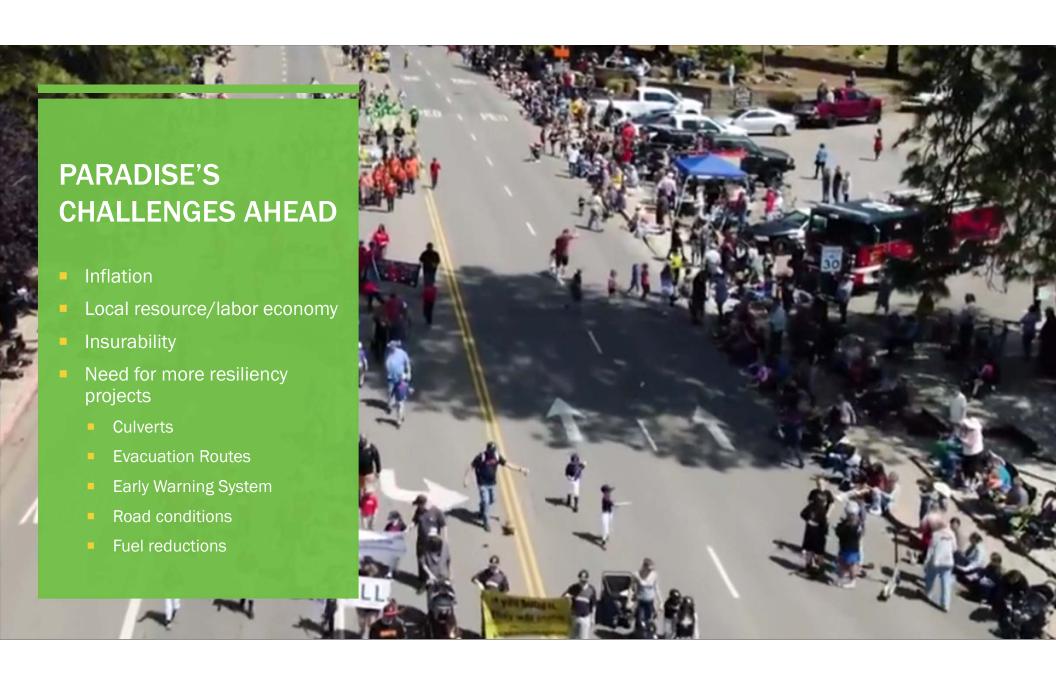


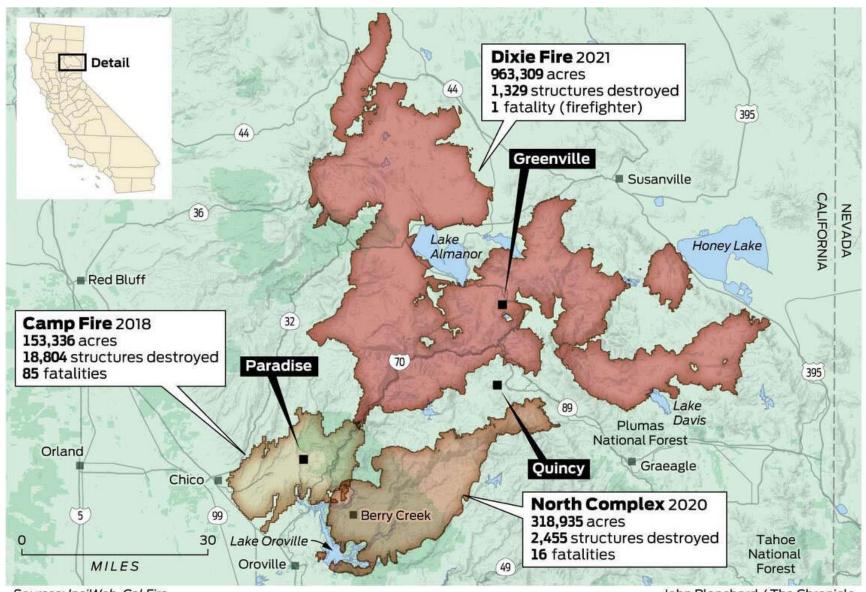


STORM DRAINAGE MASTER PLAN

- Anticipated June 2022
- Used LiDAR flights to assist with new hydraulic model
- Identifies 42 additional projects exceeding \$14M focused on capacity



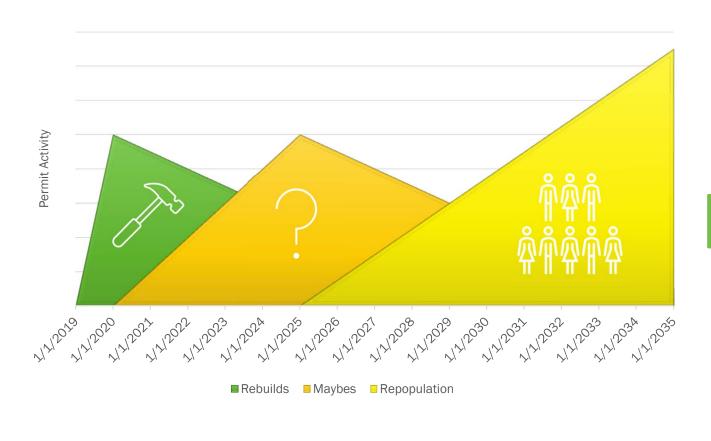




Sources: InciWeb, Cal Fire

John Blanchard / The Chronicle

WHO ARE WE WORKING FOR?



Today Matters.

SO, WHAT <u>ARE</u> WE WORKING ON TODAY?

- Undergrounding utilities town-wide
- Early warning system
- Defensible space projects (public and private)
- Road rehabilitation
- Sewer connection to the City of Chico
- Evacuation planning and multi-jurisdictional coordination
- State and federal advocacy
- Engaging the public

PROJECT FACT SHEET

- ROE ROAD EXTENSION PROJECT - PHASE



Implementing Agency: Town of Paradise



▶ PROJECT BENEFITS

- Provides new access to Pentz Road traffic evacuation mute
- Avoids 3-6 miles out of way travel during traffic evacuation
- Provides second route option for 4 residential dead-end streets
- Transportation grid network supports First Responders daily operations and emergency evacuation events

▶ PROJECT INFORMATION

- Phase 1 introduces the concept of an eventual cross-town connection between Skyway and Pentz Road. The future 5-mile roadway will address circulation system deficiencies, build transportation options, add on-street bicycle lanes, and improve disaster evacuation route access.
- Phase 1 will close gap to 4 north-south roadways which serve disconnected residential areas.
- Directly benefits evacuation corridors which experienced a high concentration of traffic-related fatalities during the Camp Fire
- Phase 1 prioritizes new roadway link serving long dead-end streets including South Libby, Edgewood, and Sawmill.







PROJECT OUTCOMES















REBUILDING PARADISE BY THE NUMBERS

SINGLE FAMILY HOMES

2,313 BUILDING PERMIT APPLICATIONS RECEIVED
1,628 STICK BUILT / 684 MANUFACTURED

2,139 BUILDING PERMIT BUILDING PERMITS ISSUED

1,358 HOMES REBUILT (CERTIFICATE OF OCCUPANCY)



TOWN OF PARADISE
WEEKLY RECOVERY UPDATE
MAY 11TH, 2022



THANK YOU!

