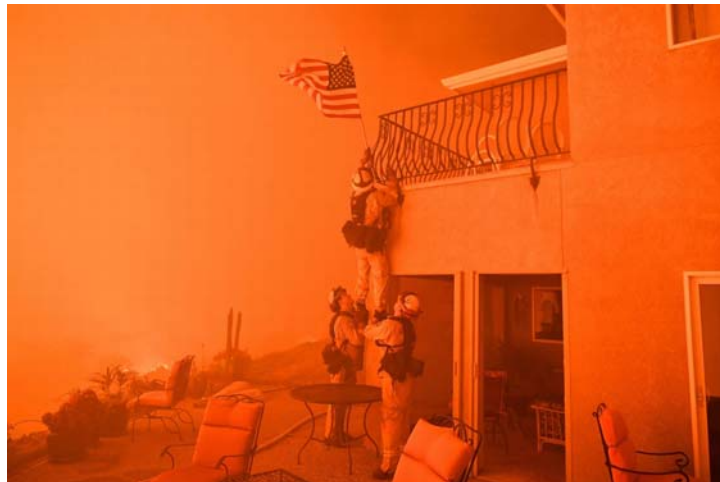




Final Version 2  
See Correction Page 15

## Post Incident Action Summary



### ***Wall Incident***

CA BTU 010975

July 7-14, 2017

***CAL FIRE***

### Incident Management Team 6

Brian Estes, Incident Commander





## **Executive Summary**

### **Fire Environment**

#### **Location**

Chinese Wall Road, north of Swedes Flat Road. N39.460833" x W121.412778"

The Wall fire burned within the CAL FIRE Butte Unit in the Bangor area of south Butte County, California. This area is south of the South Fork of the Feather River arm of Lake Oroville.

The area is encompassed by the Bangor, Rackerby, Forbestown and Lake Oroville USGS 7 ½' topographic map quadrangles. The area is completely within Butte County. Area landmarks included the Rocky Honcut Creek, Swedes Flat, Rattlesnake Point, Phoenix Hill and Morgan Ravine.

#### **Geography**

Butte County is located in the Northern Sacramento Valley on the east side of the valley. The county is dominated by the Feather River, Butte Creek, Big Chico Creek and the many buttes that are volcanic in origin. The population of the county is approximately 220,000. Butte County is approximately 1,677 square miles in size.

The fire area is dominated by the Rocky Honcut Creek and Rattlesnake Point. The elevation range is from five-hundred sixty feet (560') elevation in the bottom of Honcut Creek to two-thousand one-hundred sixty-eight feet (2168') elevation at Rattlesnake Point. Slope steepness ranges from flat to seventy percent (70%). The fire area has predominately a west facing aspect.

#### **Climatology**

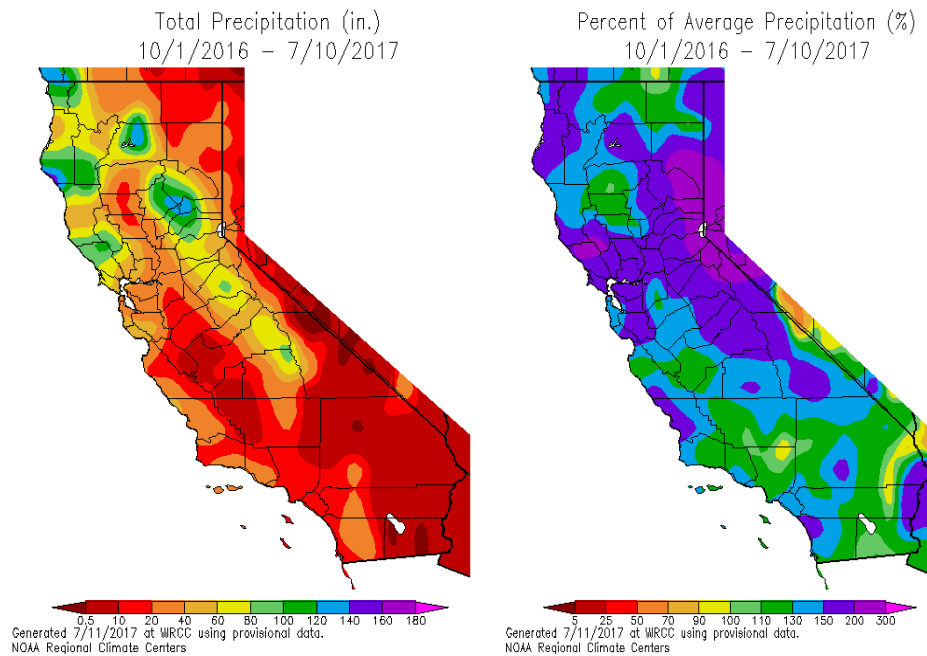
General summer weather in the Sierra Foothills east of Oroville is typically warm and dry. The Delta sea breeze can penetrate into the area, providing temporary cooling. Average early July high temperatures are in the upper eighty to upper ninety degrees. It is not uncommon for elevations below one-thousand five-hundred feet (1,500') elevation 1,500 feet to reach one-hundred five (105') degrees. Overnight low temperatures are mainly in the upper sixty degrees (60°F) to lower seventy degrees (70°F) Fahrenheit. Thermal belt conditions are common above one-thousand feet (1000') elevation.



The summer monsoon season normally commences in early July. Occasionally, some of the monsoonal moisture reaches the fire area, which results in potential thunderstorm development. Diurnal wind patterns are characterized by a down-slope down-canyon wind regime in the late evening through sunrise. Most common wind directions are northeast to east. Up-slope up-canyon wind develops in the morning.

During onshore flow or Delta sea-breeze patterns, the afternoon wind is pre-dominantly southwest to west ten to fifteen miles per hour (mph) with gusts to around twenty mph. The peak wind period is usually mid-afternoon through early evening hours. Foehn or down-slope wind patterns can develop. These down-slope wind events can result in extremely low humidity during the day and night. The Feather River canyon is a notorious area for enhanced down-slope wind.

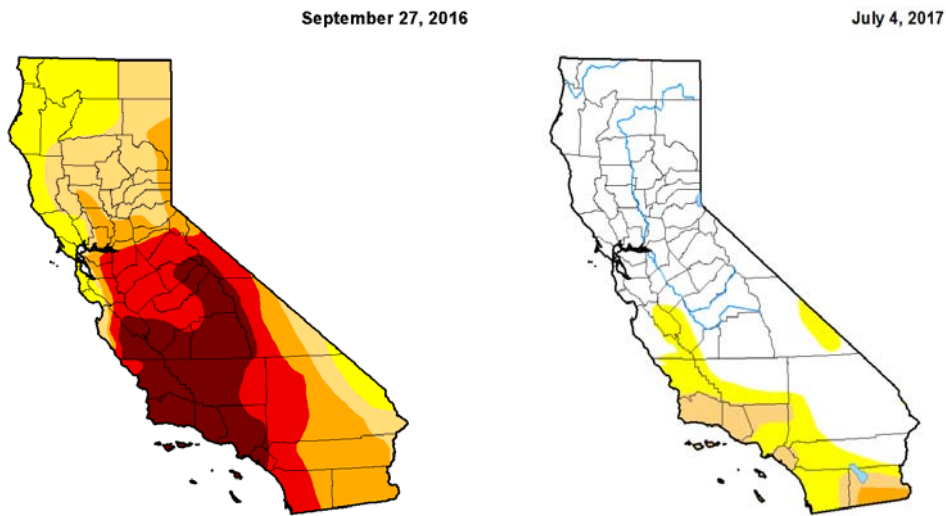
The fire area was in a multi-year drought pattern through early fall 2016. The 2017 water year precipitation was well above normal and erased nearly all of the long-term drought conditions for the area. The figures below show the water year precipitation and the percent of average.



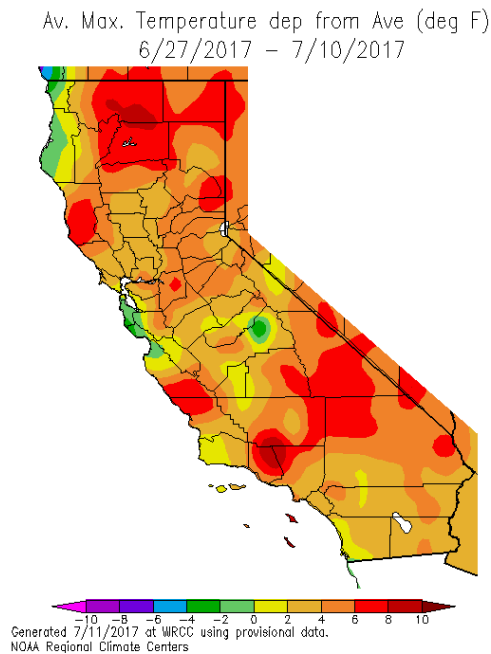
Note that most areas in the Northern Sierra Foothills received 150-200% of normal precipitation from October 1, 2016 through July 10, 2017.



At the start of the water year, most of the state was in moderate to extreme drought. Conditions dramatically improved through the winter and spring. Drought conditions as of July 4, 2017 are shown below.

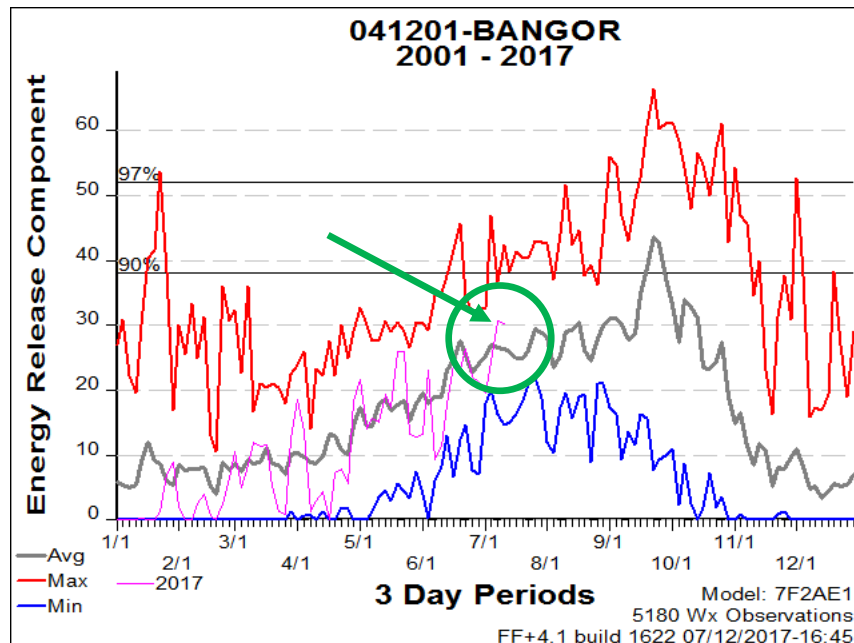


Average high temperatures for the past fourteen days ending July 10, 2017 were several degrees above normal.





An analysis of the Energy Release Component (ERC) of the National Fire Danger Rating System (NFDRS) reveals that large diameter and live fuels in the fire area are near to just above average in flammability during the period of the Wall Fire.



## Fuels

Abundant winter rains provided for an exceptional crop of flashy fine fuels all over the state of California. Rainfall at the Bangor Remote Automatic Weather Station (RAWS) averages 35" per year. The winter of 2016-2017 the station measured over 50". Grass in some areas around the fire ranged from 1 foot to over 4 foot in depth.

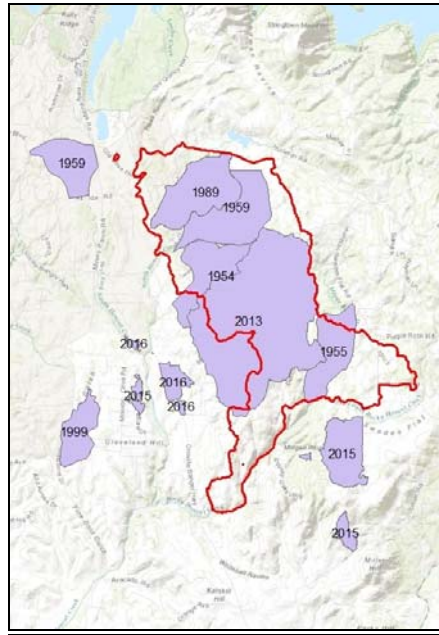
A large area of the Wall fire perimeter is within the perimeter of the Swedes Fire which occurred in August 2013. This area had high depth and grass fuel loading and heavy large diameter dead standing and downed snags. The remaining area had heavy brush with an oak and gray pine over story.

The primary carrier of the fire in this area was the grass and shrub litter. Most crowns of brush and trees were only scorched and not burned, except in areas where terrain, wind and sunlight were in alignment. In those cases complete crown consumption occurred.



Area Incident History

The area of the Wall fire has extensive and recent fire history. The Swedes Flat area especially has multiple ignitions in the last 10 years.



The most recent fire was the 2013 Swedes Fire. This fire was in the heart of the Wall Fire perimeter and burned 2,462 acres. With the abundant rainfall this winter, the resulting fuel inside the Swedes perimeter enhanced the spread of the Wall fire in its initial stages. The other major fire inside the Wall Fire area was the 1989 Canal Fire that burned 600 acres on the north end of the Wall Fire perimeter.

YEAR	FIRE NAME	ACRES
1954	SWEDES FLAT	849
1955	SWEDE'S FLAT	462
1959	SKYLINE	367
1959	NORTH HONCUT CREEK	799
1989	CANAL	595
1999	DUNSTONE	277
2013	SWEDES	2462
2015	SWEDES	390
2015	OLIVE	47
2015	WEB	71
2016	BANGOR	142





Ownership

<u>Ownership</u>	<u>Burned Acres</u>	<u>%of Total</u>
Private	5,864	97.2%
BLM	169	2.8%
<b>Total</b>	<b>6,033</b>	<b>100%</b>

All lands are within the CAL FIRE BTU Direct Protection Area (DPA).

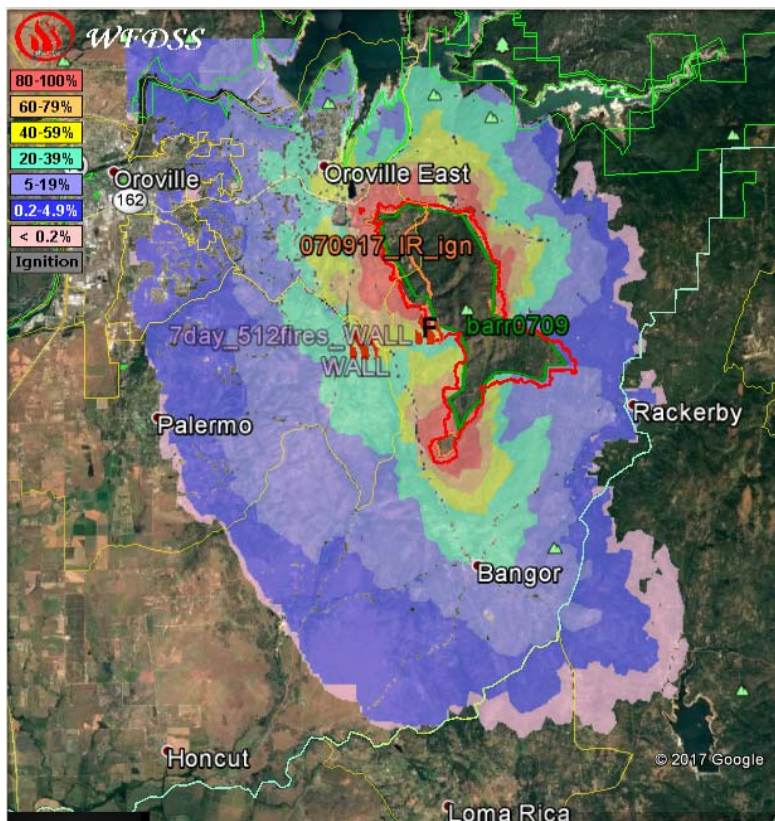




## Incident Potential

High temperatures and low relative humidity levels contributed to the potential of the Wall Fire. Live fuel and large diameter fuel moisture levels were still relatively elevated due to extensive moisture received in the area. But the excess rainfall also promoted a deep and thick fine fuel layer that was completely cured. And the recently ended five-year drought caused mortality in the crowns of the brush and trees that was mostly available for combustion.

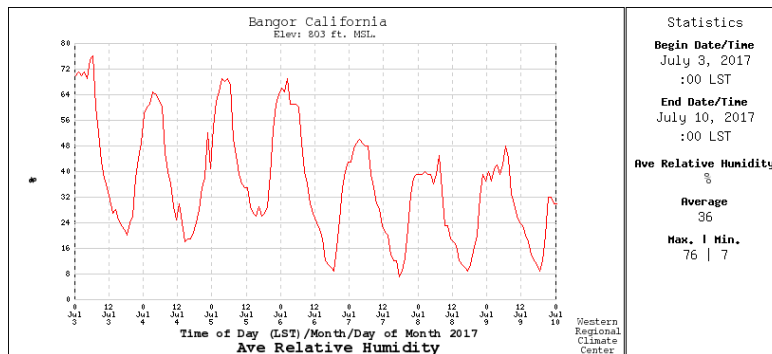
An analysis of the spread potential using the Fire Spread Probability (FSPro) module of the Wildland Fire Decision Support System (WFDSS) is shown below.



The FSPro results above depict the probability of an area being burned over a seven day period following the fire run on July 9th. The percentage probabilities are shown to the left. For example, the town of Bangor had a 20-39% probability of burning. The assumption is that fire suppression was not successful over the seven days. Given the observed fire behavior, this is probably a conservative estimate. The average predicted fire size absent fire suppression activity was 14,000 acres.







The strong upper ridge finally weakened on the July 10<sup>th</sup> as a weak disturbance moved across the Pacific Northwest. One impact was stronger onshore low-level flow which strengthened the Delta sea breeze. Daytime temperatures cooled to near seasonal values and held steady through July 12<sup>th</sup>. Another benefit to the onshore pattern was improved nighttime humidity. Lower elevations had maximum overnight humidity values of 55-70% during the period of July 10<sup>th</sup> through July 12<sup>th</sup>.

Slope/valley wind patterns occurred throughout the incident duration. Wind direction favored south to southwest during the day and northeast to east at night. Afternoon wind speeds were stronger from July 10<sup>th</sup> through July 12<sup>th</sup> due to the enhanced onshore flow. The strongest wind speeds occurred from around 1400 hours through 1900 hours. The Bangor and Pike County Lookout RAWs showed late afternoon wind gusts between 20 and 25 mph. Incident Meteorologist (IMET) and Fire Behavior Analyst (FBAN) observations taken on July 10<sup>th</sup> showed eye-level wind gusts averaging 8-12 mph.

### Fire Behavior

On initial attack the Wall Fire exhibited dangerous to critical rates of fire spread. This spread rate continued throughout the night during the first operational period. Abundant thick high loading grass with an over story of shrubs and dead standing and down vegetation provided the carrier fuels. A dry atmosphere, strong sunlight, long day length and low atmospheric humidity contributed to very low fine dead fuel moistures, below 3% for most of the first burn period.

The fire moved in three identifiable time periods, driven by wind and fuels.

During the initial attack period, the fire spread with a west wind at twenty chains per hour. After sunset, downslope winds pushed the fire at five chains per hour. On the second day there was little fire spread during the daytime hours.



However, before sunset a downslope wind pushed the fire north to the Forbestown Road area at over thirty-three chains per hour.

Date & Time	Duration (hours)	Forward spread in chains per hour	Average Rate of Spread in chains per hour
7/7 1452 hours -7/8 0100 hours	10	200	20
7/8 0100-1400 hours	13	60	5
7/8 1800-2100 hours	3	100	33
7/8 After 2100 hours	-	Negligible	0

Maximum Flame length identified by pictures and eyewitness accounts ranged from ten to twenty feet during initial attack and well over one-hundred feet during the evening of July 8th. Short and long range spotting was a constant problem over the life of the Wall Fire. During the evening of July 8th, spotting was occurring hundreds of feet in advance of the main fire. The spotting potential was enhanced by the Probability of Ignition at or near 100% during the first 48 hours of fire spread.



The fire run pictured above on the evening of July 8<sup>th</sup> displayed signs of lee-side vortices. Two counter rotating central core fire whirls were located on the shoulders of the fire. They can be seen clearly in the time-lapse video taken from the Oroville Dam. See video link. <https://youtu.be/mup5-RfADik>



## Contingency Plans

A contingency plan was developed by the IMT 6 Operations Section to aid fire suppression resources with organization, resource ordering, fire suppression tactics and planning in the event the Wall Incident were to escape the current control lines and spread to other areas threatening the citizens of Butte County their property and infrastructure within the community.

The plan was sub-divided into the Black Bart Road Area Contingency Plan, the Miners Ranch Road Area Contingency Plan, the Stringtown Contingency Plan and the Wyandotte/Oro Bangor Road Area Contingency Plan.

Each individual Contingency Plan includes a contingency plan framework document with key information, an ICS 204 identifying expected resource needs and map(s) for each identified geographic area. The plan was forwarded to the Unit for their future use.







## **Initial Actions**

### **Report**

The Wall Fire was reported on July 7, 2017 at 1452 hours. Significant fire potential was recognized immediately with both a report from the Pike County Lookout and building smoke column presentation from the valley floor.

The responding Battalion Chief (B2116) requested a total of four air tankers prior to the first resource arriving based on the observed smoke column. Initial report from the first arriving engine was at least ten acres moving uphill and actively burning on all flanks. The initial engine requested five additional engines. B2116 arrived and assumed incident command (IC) thirteen minutes later, reported fifty acres with a rapid rate of spread and augmented the response requesting an additional two hand crew strike teams, two Type III engine strike teams, two strike teams of engines any type closest resource, two strike team leaders, four water tenders, two additional air tankers, one very large air tanker (VLAT), one additional helicopter and one medic unit. PG&E was requested due to area power lines.

Fifty minutes after initial response, B2116 reporting seventy-five acres, a critical rate of spread with two dozen homes threatened at head of fire. He requested the Butte County Sheriff's Office (BCSO) and California Highway Patrol (CHP) for evacuations and road closures. By 1730 hours air attack reported the fire to be five-hundred acres and an additional significant resource order was placed by the IC. Evacuation Orders were initiated for Swedes Flat Road, Chinese Wall Road, Hurelton Swedes Flat Road, Stoney Oaks, and the Black Bart Road network.

During the first burning period there were five civilian burn injuries, one inmate fire crew firefighter burn injury, and one local government engine firefighter heat exhaustion injury. Although all injuries were minor, two required transport the hospital.

Prior to 1800 hours the BTU Unit Duty Chief (D2102) and the IC (B2116) discussed the need for Incident Management Team (IMT) activation and quickly decided to place the order. By 1900 hours the fire was one-thousand acres and still burning at a rapid rate of spread.

At 1900 hours Division H reported that 10 homes were confirmed destroyed at the head of the fire. At sundown fire growth moderated but continued to grow at a rapid rate of spread. By 0300 hours on July 8<sup>th</sup> the local "Swedes Winds" (Sundowners) became very strong, pushing the fire downslope into two critical areas and causing the fire to spot south across Swedes Flat Road, with the spot growing to three-hundred acres within a couple of hours.





Division C on the north side of the fire was outflanked by the downslope wind, which consumed approximately one-thousand feet of established hose lay and handline. The fire progressed downslope and down canyon into the very inaccessible Owens Ravine.

Efforts continued to aggressively flank and “hot spot” the fire provide structure defense and control the rapidly growing spot fire across Swedes Flat Road which was spreading into a very rugged drainage. Division C attempted to slow the fire’s progression into Owens Ravine, however the winds did not cooperate.

### Initial Response

1 BC, 7 Engines, 2 crews, 2 dozers, 2 water tenders, 1 A/A, 2 Tankers, 1 SOF.

### Control Objectives

Initially control objectives were to provide structure defense within and outside the fire perimeter and keep the fire north of Swedes Flat Road, east of Chinese Wall Road, west of Hurelton Swedes Flat Road and south of Forbestown Road.

By 0400 hours on July 8<sup>th</sup> the control objectives were changed to keep the fire north LaPorte Road, east of Oro Bangor Highway, west of Robinson Mill Road, south of Forbestown Rd and to provide for structure defense within and outside the perimeter of the fire.





## **Major Incident Transition**

### **Team Transition**

CAL FIRE Incident Management Team 6 (IMT 6) was activated to the Wall Incident at approximately 1900 hours on July 7<sup>th</sup> with an IMT activation conference call at 2000 hours and team members arriving overnight and immediately embedding in support of BTU extended attack incident operations during the first operational period.

IMT 6 assisted the Unit with the creation of the second operational period Incident Action Plan (IAP), creation of GIS map products and set up of the Incident Base. IMT 6 conducted both the 0700 hours operational briefing and the Unit in-brief at 0900 hours on July 8<sup>th</sup> at the Silver Dollar Fairgrounds Incident Base in Chico to support the Unit.

IMT 6 assumed command and control of the incident at 1000 hours on July 8<sup>th</sup>.

### **Incident Base**

The Incident Base was established at the Silver Dollar Fairgrounds in Chico. CAL FIRE Hand Crews were initially housed and supported out of the Butte Fire Center in Magalia, then relocated to the Incident Base to centralize all incident logistical support.

### **Staging Areas**

Three Staging Areas were established including Forbestown Staging at the intersection of Hurlton Swedes Flat Road and Forbestown Road, Swedes Staging at the intersection of the Oro-Bangor Highway and Swedes Flat Road and Olive Staging at the intersection of Forbestown Road and the Oroville-Quincy Highway.

### **InciNET, Clerical and GIS**

Both a clerical support and GIS trailer with support personnel were successfully activated for this incident. CAL FIRE GISS personnel and the clerical vendor performed at an exceptionally high performance level worthy of note. InciNet was delayed and after several initial laptop and network issues, eventually established and supported during the latter stages of the incident at an acceptable level.

### **Trainees**

IMT 6 facilitated training assignments for 109 Trainees on the Wall incident. Incident Management Team 6 Trainees are included in this total count. Twenty-seven have been recommended for qualification and forty-two will need additional assignments. Ten Priority Trainees were assigned to this incident, received a comprehensive training assignment and three fully completed their Taskbooks and are now fully qualified.



Trainee Summary

	Command	Operations	Plans	Logistics	Finance	Air Ops	Not Seen	Total
<b>CAL FIRE</b>	3	14	5	4	0	0	11	37
<b>LG</b>	8	12	3	14	10	3	12	62
<b>USFS</b>	0	1	0	0	0	0	2	3
<b>OES</b>	0	4	0	0	0	0	1	5
<b>CCC</b>	0	0	0	0	0	0	0	0
<b>Total</b>	11	33	8	18	10	3	26	109

**Incident Summary by Operational Period**

Final Version 2 Correction:  
Aircraft now identified during IA.

Initial Attack

July 7th	Total Resources	Total Personnel
Engines	15	50
Hand Crews	6	102
Dozers	6	8
Water Tenders	8	10
Aircraft	2 A/A, 1 Lead, 6 A/T, 1 VLAT, 3 R/W	30
Totals	35	198

Extended Attack

July 7 <sup>th</sup>	Total Resources	Total Personnel
Engines	35	122
Hand Crews	16	272
Dozers	10	16
Water Tenders	10	14
Aircraft	2 A/A, 1 Lead, 6 A/T, 1 VLAT, 3 R/W	30
Totals	83	454

Observed Weather

Hot and dry afternoon with breezy northwesterly flow. At around midnight winds moderated but it remained very warm and dry. By 0200 hours the fire area experienced short duration downslope winds which quickly subsided. At 0300 hours the downslope winds became very pronounced and steady, lasting for at least two hours.



Bangor RAWS at 1500 hours reported a temperature of 106 degrees, winds from the NW at 6-16 mph and a relative humidity of 12%. At 2000 hours, the Bangor RAWS reported a temperature of 102 degrees, calm winds and a relative humidity of 13%.

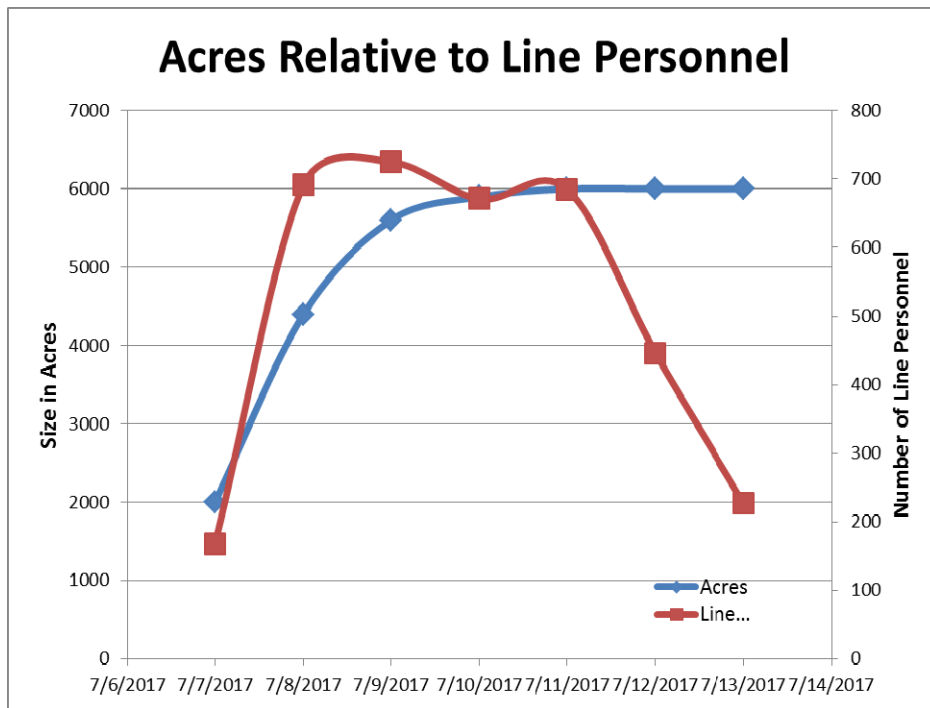
### Narrative

Fire activity during initial and extended attack ranged from dangerous to critical rates of fire spread with medium range spotting, sustained torching, and limited crown runs. Fire spread was primarily to the east south east during the afternoon and early evening hours, changing to the south and west during the early morning hours.

Initial and extended attack Air Operations resources consisted of ten fixed wing aircraft, two Air Attacks, one ASM, six S2T Air Tankers and one VLAT. These air assets responded from Chico, Redding, McClellan, Ukiah and Grass Valley Air Tanker Bases and used Chico as their Reload Base. Rotary Wing consisted of one Type 1, and two Type 2 Helicopters.

### Fire Spread

2,000 acres





## Day 2 – July 8th

	Total Resources	Total Personnel
Engines	60	242
Hand Crews	22	361
Dozers	9	18
Water Tenders	11	16
Aircraft	2 A/A, 11 A/T, 8 R/W	55
Totals	123	692

## Observed Weather

Erratic night and early morning winds caused fire to change directions. Record high temperatures, low humidity and extended daylight hours.

## Narrative

Work continued on the initial containment lines in all divisions. By the afternoon containment lines were constructed on Swedes Flat Road, Hurleton Swedes Flat Road, and in the Chinese Wall Road areas. Priorities were to contain the northwest corner of the fire south of Owens Ravine and hold the fire north of the Honcut Creek drainage on the southern part of the fire.

Division C conducted direct attack with air and ground resources from Chinese Wall Road to the north to keep the fire out of Owens Ravine. Additional resources worked from Hurleton Swedes Flat Road to the west to cut the fire off and tie in the northwest shoulder. Additional secondary lines were identified and opened up from Spring Hill Road north to Phoenix Hill. This line was an old control line from the Swedes Fire.

At approximately 1800 hours the fire spotted and became established in the Owens Ravine drainage. Extreme fire behavior was observed as the fire made a run to the north northwest towards Forbestown Road and Mount Ida Road up the North Honcut Creek drainage. The fire burned approximately 3500 acres during this run. Ground resources were able to build containment lines on the northwest and northeast sides of the fire and hold it at Forbestown Road before the end of the operational period.

Significant air operations took place during the second burn period. The Helibase was set up at the Oroville Airport. Copter 902 was utilized initial attack and performed a hoist rescue on Division L. Type 1 Copters performed water dropping. Type 3 helicopters were utilized for helicopter coordination, recon and mapping. Multiple diverts of aircraft to new initial attack incidents, as well as pilot flight time limitations impacted aircraft availability on the incident during time of critical need.

## Fire Spread

4,400 acres





Day 3 – July 9th

	Total Resources	Total Personnel
Engines	65	253
Hand Crews	20	342
Dozers	18	37
Water Tenders	17	26
Aircraft	1 A/A, 3 A/T, 10 R/W	67
Totals	134	725

Observed Weather

Localized winds during the evening hours caused erratic fire behavior. Record high temperatures, low humidity and the extended daylight hours presented challenges to firefighting personnel and suppression efforts.

Narrative

With continued air support, ground resources were able to hold the fire in the containment lines constructed by the previous shift in both the northwest and northeast sides of the fire. Direct fireline was completed in these areas and containment lines were improved as necessary. Hoselays were put in place where needed.



On the southern side of the fire, ground resources continued to construct direct line and lay hose south of Swedes Flat and in the Honcut Creek Drainage. Several spots occurred during the day on the southeast side of the drainage and, with air support, ground resources were able to contain all spots without any significant growth. Mop up on the containment lines in and around impacted structures continued around the Hurleton Swede's Flat Road area.

Air operations continued to run out of the Oroville Airport.

### Fire Spread

5,600 acres

### Day 4 – July 10th

	Total Resources	Total Personnel
Engines	95	346
Hand Crews	12	195
Dozers	19	40
Water Tenders	15	26
Aircraft	1 A/A, 2 A/T, 10 R/W	64
Totals	154	671

### Observed Weather

Cooler temperatures and favorable weather conditions provided an opportunity to make significant progress on containment efforts. Diurnal wind patterns still presented risk to firefighting personnel and suppression efforts.

### Narrative

Containment lines were improved and significant mop up operations began in the northwest and northeast sides of the fire around impacted structures and along containment lines. The direct line was completed on south side of the fire through the Honcut Creek drainage back to Swedes Flat Road. Secondary dozer line around Division P was also completed in this area. One spot fire occurred southeast of Honcut Creek. With significant air support, ground resources were able to contain it without any significant growth. The evacuation warning for all areas west of Miners Ranch Road was lifted at 1500 hours and the Black Bart Loop area northeast of the fire was repopulated at 1700 hours.

### Fire Spread

6,033 acres



Day 5 – July 11th

	Total Resources	Total Personnel
Engines	60	242
Hand Crews	21	357
Dozers	9	17
Water Tenders	14	24
Aircraft	7 R/W	45
Totals	111	685

Observed Weather

Cooler temperatures and favorable weather conditions continued to provide an opportunity to make significant progress on containment efforts. Diurnal wind patterns still presented risk to firefighting personnel and suppression efforts.

Narrative

All direct and secondary lines were completed during this operational period. Heavy mop up progressed around the whole fire along containment lines and around impacted structures. Olive and Forbestown Staging Areas were shut down. Fire Suppression Repair efforts began. All areas north of Forbestown Road were repopulated at 1200 hours and the Stony Oaks Loop was repopulated at 1700 hours.

Fire Spread

No additional spread.

Day 6 – July 12th

	Total Resources	Total Personnel
Engines	40	156
Hand Crews	14	242
Dozers	8	16
Water Tenders	11	17
Aircraft	2 R/W	15
Totals	75	446

Observed Weather

Cooler temperatures and favorable weather conditions continued to provide an opportunity to make significant progress on containment and fireline suppression repair efforts.



### Narrative

Mop up and patrol continued along containment lines and around all impacted structures. Fire Suppression Repair work progressed and a significant backhaul of hose and other firefighting equipment began. The incident provided a significant resource augmentation to a new initial attack fire start northeast of the incident and received all resources back from the Unit prior to the end of the shift. The evacuation order for the entire fire area was downgraded to a warning at 1100 hours and the warning was lifted at 1800 hours completing the repopulation effort for the entire incident.

### Fire Spread

No additional fire spread.

### Day 7 – July 13th

	Total Resources	Total Personnel
Engines	15	59
Hand Crews	8	131
Dozers	8	15
Water Tenders	8	12
Aircraft	1 R/W	10
Totals	40	227

### Observed Weather

Cooler temperatures and favorable weather conditions continued to provide an opportunity to make significant progress on containment and fireline suppression repair efforts.

### Narrative

Mop up and patrol continued along containment lines and around all impacted structures. Fire Suppression Repair work progressed and the backhaul of hose and other firefighting equipment continued.

### Fire Spread

No additional fire spread.



**Air Operations Summary**

**Fixed Wing Summary**

Date	Flight Hours	Flight Cost	Gallons	Cost per Gallon
7/7	34	458,328	88,444	5.18
7/8	52.50	311,533	62,933	4.95
7/9	13.29	13,338	0	0
7/10	1.7	8,944	2,030	4.4
7/11	-	-	-	-
7/12	-	-	-	-
7/13	-	-	-	-
7/14	-	-	-	-
Totals	101.49	\$792,143.00	153,407	\$5.16

**Helicopter Summary**

Date	Flight Hours	Flight Cost	Gallons	Cost per Gallon
7/7	13.8	42,673	95,115	.49
7/8	45.5	178,832	226,832	.78
7/9	34.6	189,197	217,888	.87
7/10	14.4	133,506	61,728	2.16
7/11	5.0	51,811.60	0	0
7/12	-	-	-	-
7/13	-	-	-	-
7/14	-	-	-	-
Totals	113.3	\$596,019.60	601,563	\$0.99







**Estimated Incident Costs**

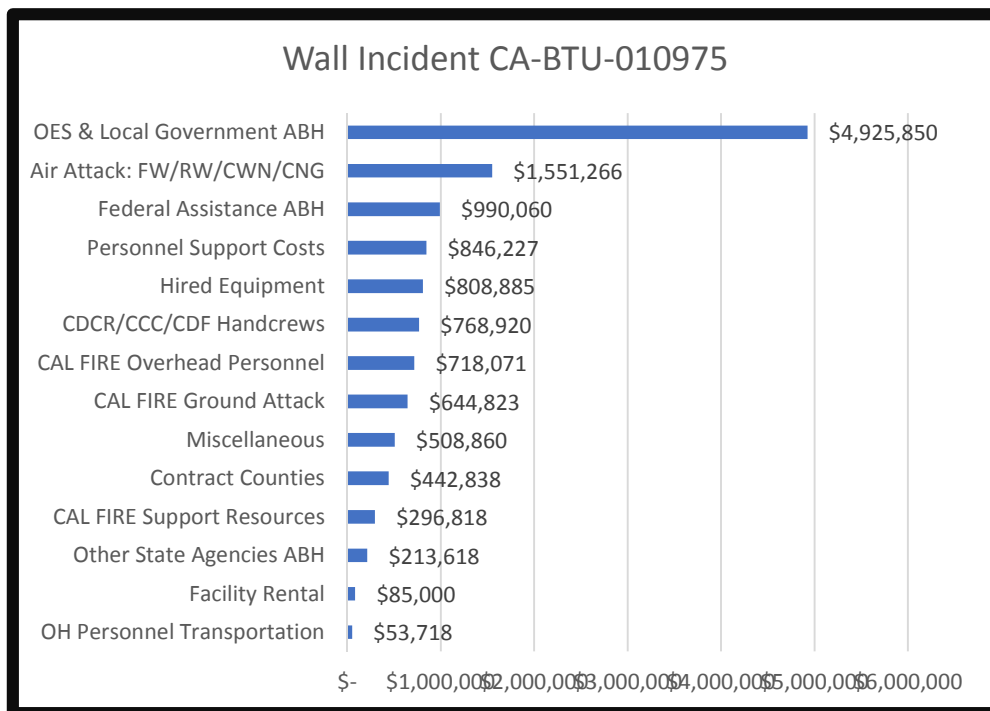
Day	Date	Cost per Day	Cost to Date	Acres to Date	Cost per Acre
1	7-7	\$1,026,284.00	\$1,026,284.00	1000	\$1,026.28
2	7-8	\$2,077,666.00	\$3,103,950.00	2400	\$1,293.31
3	7-9	\$2,491,573.00	\$5,595,523.00	4400	\$1,270.71
4	7-10	\$2,579,533.00	\$8,175,056.00	5600	\$1,459.83
5	7-11	\$2,268,068.00	\$10,443,124.00	5600	\$1,864.84
6	7-12	\$1,784,950.00	\$12,228,074.00	5600	\$2,183.58
7	7-13	\$1,407,270.00	\$13,635,344.00	5600	\$2,434.88
8-10	7-14 to 7-16	\$1,192,482.00	\$14,827,825.00	6033	\$2,457.79

**Total Projected Incident Cost**

\$14,827,825.00

**Total Cost per Acre for Incident**

\$2,457.79





## **Command and General Staff**

### **Safety Officer**

The Safety Section supported the incident by providing Line Safety Officers (SOFR), conducting Incident facility inspections and documentation of the actions conducted by the Wall Incident Safety Section.

Incident hazards were identified with mitigations detailed in the daily ICS-215A Hazard and Risk Analysis. Each of these pre-identified hazards were addressed in the daily safety message, specified on the ICS-204 Division Assignments under special instructions and reviewed with all line personnel during the safety portion of the operational briefing.

The Safety Section staffing was comprised of one Type 1 Safety Officer (SOF1), one SOF1 Trainee and five SOFR's. Additionally there were two SOFR trainees.

Safety Section personnel helped manage and review all incident related injuries. There were no serious injuries and only a few minor injuries requiring higher than line level medical care. Additionally, SOFR's tracked the treatment of poison oak cases, blisters as well as some general illness issues.

The Safety Section was able to fully qualify one trainee and bring another trainee to twenty-five percent (25%) completion of his Taskbook on this incident.

### **Public Information Officer**

Upon notification of the team activation the IMT 6 Information Officer (PIO1) contacted the Information Officer Trainee who was deploying from southern California. In addition, contact was made with the lead Unit PIO to get a briefing on the current situation.

The BTU information staff had already opened a call center in Oroville utilizing Volunteers in Prevention (VIP) prior to IMT 6 activation. The Unit was using a pre-existing email distribution list to send incident updates and fact sheets. The fact sheets and incident updates were sent from the call center manager to media contacts, cooperating agencies and stakeholders. The call center staff forwarded the fact sheets and updates to Sacramento Communications staff for use on statewide social media platforms. The Unit was also using their local Twitter account to rapidly distribute incident information.

Three PIO's were assigned to the fire prior to the IMT transition with three additional PIO's arriving after the IMT assumed command. Additional PIO's were ordered early due to the dynamics of the incident.



Based on the great work already done by Unit personnel, several key operations had already begun. A media phone line was requested and established soon after the transition. Media inquiries were handled quickly and effectively by PIO's based at the Incident Command Post, reducing the workload on the field PIO staff.

Throughout the incident field PIO's regularly visited and updated six community information boards where fact sheets and maps were posted. Field PIO's conducted media interviews and answered questions from members of public at these locations. The information they provided to members of the community in threatened areas helped ensure accurate information was being disseminated.

It is estimated that the call center processed several thousand calls from the public and media during the incident.

The IMT 6 PIO1 contacted the Butte County Sheriff's Office (BCSO) PIO soon after the transition. A plan was formulated to co-locate together to ensure that coordinated messaging was occurring. This was especially important during evacuation and repopulation on both Saturday July 8<sup>th</sup> and Sunday July 9<sup>th</sup> when evacuation orders were being expanded due to fire progression. All evacuation and repopulation messaging was achieved through constant collaboration with the Law Enforcement Liaison Officer (LELO), Sheriff PIO and GIS staff. Additionally, contact with the County EOC PIO was made and maintained to ensure post-fire recovery information was messaged before the incident concluded.

Two VIP visits occurred on the incident including one on the fire line and one at the Base Camp. Coordination was maintained throughout the incident with Sacramento Communications regarding website update, social media and special requests.

### **Liaison Officer**

The IMT 6 Liaison Officer (LOF1), Law Enforcement Liaison Officer (LELO) and California Highway Patrol (CHP) LELO all responded to the incident with two of three able to attend the Team in-brief transition meeting.

Liaison priorities and objectives were established and sensitive and critical areas were identified. The current relationship between the local Unit, assisting and cooperating agencies was paramount and clearly set as one of the main objectives for the Liaison Section.

The efficient, effective, and professional management of all evacuations and repopulation were a priority for both IMT 6 and the Unit. The Team LELO's worked with BCSO, CHP, the Butte County Department of Transportation, and the California Department of Transportation to open all areas under evacuation warnings and orders.



Each agency worked diligently to open communities and roadways affected by the orders. The first wave of re-population began on July 9<sup>th</sup> and all areas were released from evacuation warnings on July 12<sup>th</sup>.

The LOF1 identified and engaged cooperating agencies in the affected community. The Liaison Section worked diligently with Agency Representatives to establish relationships and communicated daily with them on incident issues and regarding cooperator concerns. Cooperators Meetings were held each morning at 1000 hours. The meetings continued until the incident was transitioned back to the local Unit. At the peak of the incident there were twenty-one (21) agencies identified on the Agency Representative contact list.

### **Operations Section Chief**

Weather, fuels, topography, remote location and fire history were all in alignment on this incident and contributed to rapid-fire growth and resistance to suppression actions during initial attack. The fire quickly grew beyond the initial and extended attack capabilities of the initial responding suppression resources.

The Team Operations Section Chief (OSC1) arrived at the fire at 2130 hours on July 7<sup>th</sup> and embedded with the extended attack OSC1. Working together, they developed and updated the incident organization and established the tactical priorities for the following day.

The Deputy OSC1 arrived at 2200 hours and embedded with a local Unit Division Chief filling the operations “planning” role in support of the IC reconciling all assigned resources, updating the current and planned incident organization and maps, current radio frequencies and other operational items and met with the Plans Section at the BTU Headquarters to assist with the development of the Incident Action Plan (IAP) for the following day. By the end of the first operational period the fire had grown to approximately 1600 acres and spread in east, south, west and northerly directions.

Simultaneously, the Butte County Sherriff’s Office (BCSO) was coordinating significant evacuations throughout the fire area. The California Highway Patrol (CHP) was also assisting with traffic control points. Animal rescue groups, Pacific Gas and Electric (PG&E) crews and other assisting agencies were all working together to prevent additional losses and injuries. Initial evacuations were ordered for the surrounding areas including, Swedes Flat, Hurlerton Swedes Flat, Black Bart and Stoney Oaks.

The early engagement of the Team OSC’s with the Unit OSC’s was an important factor in the Team’s ability to develop and complete the IAP by 0700 hours and assume command of the fire by 1000 hours on July 8<sup>th</sup>. The Unit established clear objectives and provided personnel resources in key operational areas of the incident organization and had ordered sufficient resources for the second operational period.



## **Plans Section Chief**

IMT 6 Plans Section personnel arrived late evening on July 7th at the Butte Unit Headquarters Silver Dollar Fairgrounds Incident Base location and integrated with the Unit personnel in their planning cycle. IMT 6 Plans Section personnel at the Incident Base established Check-In. The Team 6 PSC1 facilitated both the Operational Briefing and the in-brief transition meeting for the local Unit the following morning and assumed responsibility for the Plans Section at 1000 hours on July 8<sup>th</sup>.

Starting with the July 8<sup>th</sup> Operational Briefing, all IMT 6 planning cycle meetings and briefings were conducted in a timely and effective manner. A CAL FIRE InciNet Kit with Advisors and IT personnel arrived and were assigned. There was a delay in receiving the InciNet Kit from the North Zone Cache due to being locked and inaccessible to CAL FIRE during federal employee off-duty hours. When it did arrive, there was a significant delay in establishing routine InciNet based Check-In due to all laptops in the Kit needing software and security patch updates prior to use. There was also issue with the timely establishment of a fully functional InciNet network due to both equipment issues and apparent lack of full INCA capabilities by the assigned IT personnel. All issues were ultimately resolved and assigned IT personnel did provide for InciNet assistance to the Plans and Finance Sections, as well as on-site IT support services. IAP production, clerical and GIS support services were established and maintained through use of both the CAL FIRE personnel and clerical and GIS vendors.

Resource and Demobilization Units were established and maintained complete resource accountability. A Situation Unit was established. IMT 6 assumed and maintained responsibility for the ICS-209 starting at 1800 hours on July 8<sup>th</sup> until the incident was transitioned back to the local Unit. NIROPS IR flights were effectively used. A FOBS team was used to validate fire perimeter information through the Situation Unit. High quality and timely GIS products were delivered as needed through the use of the IMT 6 GISS and GIS vendor. Both an IMT 6 FBAN and NWS IMET were assigned. The Situation Unit also completed a Damage Inspection (DINS) Report.

A full Documentation Unit was established and maintained as well as the Training Technical Specialist function. The PSC1 completed the Post Incident Analysis after action report and facilitated the turn-back transition meeting on July 14<sup>th</sup>.

## **Logistics Section Chief**

The Incident Base was established at the Silver Dollar Fairgrounds in Chico. The local Forestry Logistics Officer (FLO) was providing logistics for the incident prior to our arrival and had things in motion. The rapid growth and rapid ramp down of the incident provided for multiple challenges. The Logistic Section was able to provide support for approximately 1,700 personnel assigned to the incident.



The Silver Dollar Fairgrounds has been used for multiple Base Camps in prior years and having access to prior facility maps gave us the ability to develop a facility plan very quickly.

The Medical Unit was staffed with a Medical Unit Leader (MEDL). Peak staffing for the Medical Unit was ten personnel who were deployed as two-person Advanced Life Support Fire Line Paramedics (FEMP). An incident ambulance from Butte County EMS staffed with a Paramedic and an EMT was based at Swedes Staging. A vendor was utilized to support the basic medical supply needs of the incident personnel in Base Camp.

MERT was ordered on the initial punch list with a provider and the unit was staffed with a Physician's Assistant (PA-C), Nursing Supervisor and two additional Nurses. MERT arrived early on July 8<sup>th</sup>. The MERT unit attended to the medical needs of inmate firefighters as well as other personnel assigned to the incident. Additionally, MERT provided emergency treatment to injured private vendors working at the Incident Base. MERT provided service to an average of 15 persons daily.

There were multiple incident-within-an-incidents (IWI) that were mitigated by the Fireline Paramedics. Only three patients transported via ambulance.

The Supply Unit was placed in a good location by the Facilities Unit to allow for growth if needed. The CCC crew provided to the Supply Unit had past experience in the Supply Unit allowing them to learn the operation easily. The local FLO was helpful and provided a list of what was used prior to the team arriving. The North Zone Cache was extremely helpful in processing the incident orders and haul back. Overall the Cache was great to work with as in past incidents.

Ground Support for the Wall incident was setup on the northern edge of the Silver Dollar Fairgrounds. Ground Support consisted of one FEM2, one FEM1, two EQPM, ten GMEC, three FF1's and twenty Runners. Ground Support utilized five Fuel Tenders, one tire service, one office trailer, one tool trailer and one ground support module. Ground Support was in a good location with both repair and ground support located in the same area for convenience. There was ample room for demobilization with a one way traffic plan.

Prior to the Team's arrival, Oroville ECC was managing incident communications. Due to multiple reports from initial attack resource that CDF CMD 7 was not working, the incident was run on BTU Support. On July 8<sup>th</sup> at 1000 hours, COM27 assumed communications on the incident. Incident communications were eventually transferred to a NIFC Repeater system that included three command repeaters all linked via simplex VHF.





MKU27 from Growlersburg Camp provided breakfast on July 8<sup>th</sup> as its first meal. Feeding for all incident personnel was established at the Base Camp. The MKU provided more than 9,000 meals.

The Motel Unit was established very early in the incident by the local unit staff which made the transition seamless and provided accommodations early for crews that had been on the line during initial and extended attack. Locating accommodations was challenging due to the number of area rooms taken up by Oroville Dam construction workers. Mobile sleepers were also used, which took some pressure off of the Motel Unit.

There was excellent support by the Fairgrounds manager and his staff. Silver Dollar Fairgrounds has been used as an Incident Base numerous times over the past several years. The fairgrounds staff provided the facilities unit with a copy of a previous Base Camp Map which greatly assisted with the initial set-up of the Incident Base. The facility is approximately 62 acres in size with six large buildings and several smaller ones totaling approximately 92,000 square feet of space. The facility provided full access to all facilities including chairs, tables, restrooms, barricades and two forklifts located on site. The facility easily accommodated 1,696 personnel at its height, and could easily support double that number. The Fairgrounds are easily accessible and in close proximity to Highway 99. The Fairgrounds have numerous shore power connections for RV hookups which decrease the need for generators to support trailers if utilized.

During the week of the incident, temperatures exceeded 107 degrees. Due to the high heat and low humidity, the swamp coolers in the large open space buildings were insufficient in cooling the facilities. Due to the inadequate cooling of the buildings, the incident augmented incident facilities with trailers.

### **Finance Section Chief**

The Finance Section was activated and all team members were on the road in a timely manner. Upon arrival at the incident, team members were working and providing needed help to the local Unit and/or other Sections. The Butte Unit had a finance person engaged prior to our arrival which laid the ground work for the Finance Section to be successful. The Section had several trainees that received valuable experience and a Cost Unit leader trainee completed their Taskbook.

Early in the incident, Federal Personnel Time Keepers were ordered and used to complete time documents for all Federal employees and private Type II hand crews. The Compensation/Claims Unit (COMP) was busy during the incident due to the heat and the nature of the rapidly developing fire. Overall, the Finance Section was successful in setting up a functional operation.



### **Incident Commander Comments**

Incident Management Team 6 (Estes) was activated to the Wall Incident at 1900 hours on Friday July 7<sup>th</sup> and participated in the IMT conference call at 2000 hours. The Butte Unit (BTU) established an Incident Base at the Silver Dollar Fairgrounds in Chico, CA. A large percentage of IMT 6 personnel arrived the night of July 7<sup>th</sup> and embedded with the extended attack forces working overnight. IMT 6 facilitated the 0700 hours Operational Briefing the morning of July 8<sup>th</sup>. The Unit hosted and the Team facilitated a transitional briefing at 0900 hours with a transfer of command to IMT 6 at 1000 hours. The majority of the fire growth occurred during the evening and night hours of first two operational periods. The aggressive fire attack of the Unit's initial and extended attack resources laid a strong foundation for the Team to build on. Improved weather conditions moderated fire behavior assisting firefighting forces in establishing containment lines. The incidents steep, rugged topography presented operational challenges to the Team.

The local Unit Chief provided the Team with clear written and verbal expectations. These included priorities for emergency personnel and public safety, fiscal accountability, fostering relationships with cooperators, expedient information release, and ensuring a rapid and safe repopulation of displaced community members.

