

BULLETIN

NO: 25-138  
DATE: August 6, 2025  
TO: All Personnel  
FROM: Daniel Eddy, Assistant Fire Chief, Operations  
SUBJECT: Green Sheet – CalFire Border 79 Incident

Attached is the Informational Summary Report of Serious/Near Serious Injuries, Illnesses, Accidents, or Significant Incident (Green Sheet) for the CalFire Border 79 Incident

Thank you to all the Fire Personnel who shared their experiences for this review.

- **Refer to the SDFD Operations Manual**
  - **SI 10 Section 04 Safety Communications**
- **Please review this as a crew to share all your knowledge and experiences**
  - Supervisors can add their crew members for the Vector Solutions assignment completion on all Health & Safety material

Approved by:

- Greg O'Gorman: SDFD Health & Safety Officer, SDCFCA's Section Chair

This review was conducted by the following San Diego County Health and Safety Section's Serious Incident Review Team (SIRT) members.

- Brendan Barahura: Team Lead – Battalion Chief, Cula Vista Fire Department
- Rob Brown: Lead Investigator – Lifeguard Sergeant, San Diego Fire-Rescue Department
- Kyle O'Neil: Investigator – Captain, San Diego Fire-Rescue Department
- Kyle Smith: Investigator – Battalion Chief, San Diego Fire-Rescue Department
- Dan Twohy: Safety Representative – Battalion Chief, CalFire
- Issac Fisher: Documentation Specialist – Engineer, Chula Vista Fire Department

Any questions should be directed through the chain of command.

Don't hesitate to contact the Health and Safety Office at [SDFDHealth&Safety@sandiego.gov](mailto:SDFDHealth&Safety@sandiego.gov) with comments or areas of improvement. For all other questions, contact HSO/Battalion Chief Kyle Smith at 619.533.4466 or [kasmith@sandiego.gov](mailto:kasmith@sandiego.gov)



The Health & Safety App's QR code  
login: [SDFD@wellness.com](mailto:SDFD@wellness.com)  
password: [support](#)  
24/7 support [833-SDFD-HSO \(733-3476\)](tel:833-SDFD-HSO)





# Informational Summary Report of Serious/Near Serious Injuries, Illnesses, Accidents or Significant Incident



# GREEN SHEET

## CAL FIRE– San Diego Unit

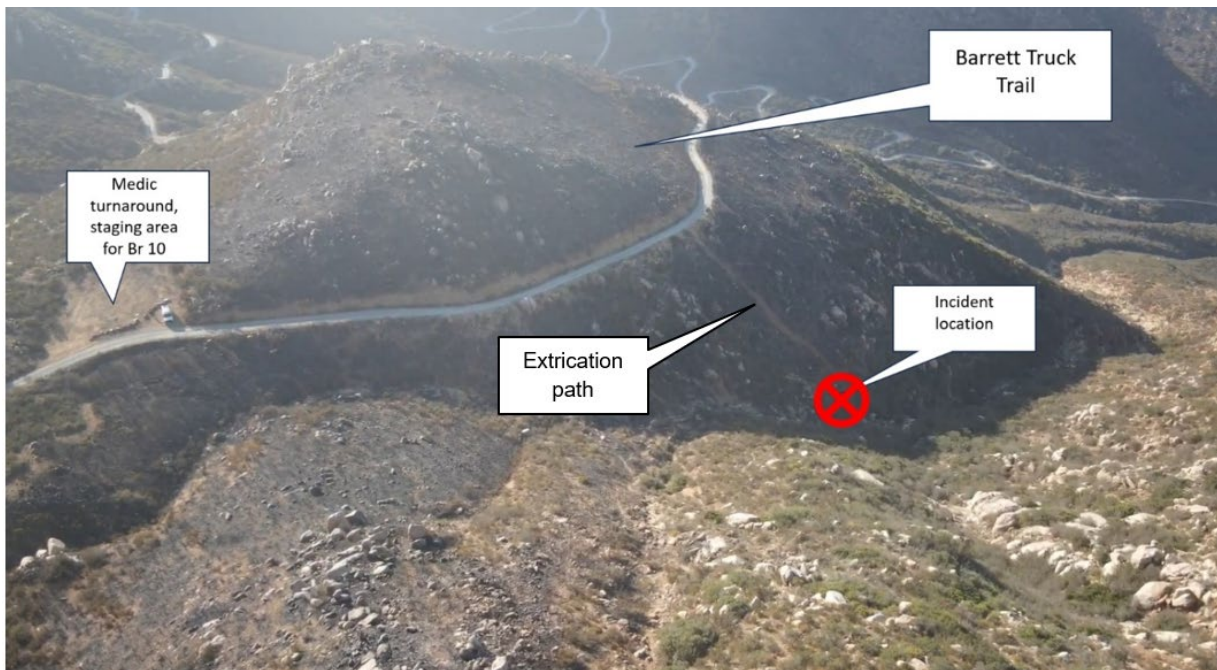
### "Border 79"

December 10, 2024  
Incident Number 24CASDU026957  
Barrett Truck Trail  
Dulzura, California

## SUMMARY

On Tuesday, December 10, 2024, at approximately 1651 hours, resources were performing containment operations on the Border 79 incident, a vegetation fire near the Barrett Truck Trail in the community of Dulzura, CA, in the unincorporated area of San Diego County, California. While engaged in suppression activities, two large boulders rolled down the hill towards a hand crew, striking the sawyer and puller, who sustained moderate to severe injuries.

### Border 79 Incident Accident Location



## CONDITIONS

### Weather:

- Weather: Clear
- Temperature: High- 68°F Low- 65°F
- Average Wind Speed: East at 10 mph
- Max Wind Gusts: 18 mph
- Precipitation: 0.0 inches
- Sunrise: 6:40
- Sunset: 16:42
- Civil Twilight: 6:10/ 17:10
- Nautical Twilight: 5:42/ 17:42

### Road Conditions:

- Unpaved single lane truck trail near the top of the hill.

### Fuel Type

- Coastal Scrub
- Chapparal

### Fire Behavior

- Border 79 Fire started on December 10, 2024, along Highway 94 and Barrett Smith Road in the Barrett Junction area of San Diego County. The fire was wind-driven, especially on the northwest flank of Tecate Peak.
- Due to the fire's rapid progression and its proximity to structures, evacuation notices and warnings were issued for residents in the area.
- The spread of the fire was stopped at 38.2 acres with 70% containment on December 11, 2024. All evacuation warnings and orders were lifted as firefighters continued to secure containment lines and extinguish remaining hot spots.
- Dried vegetation, rugged terrain, wind-driven runs, and rapid spread characterized the Border 79 Fire behavior.

### Topography:

- The accident site location is mid-slope above a drainage that runs Northwest between two mountains, approximately 250 feet below a truck trail. The average slope from the ridgeline to the drainage is 60 degrees.
- Elevation: 1600 feet.
- Aspect: Northwest.

## SEQUENCE OF EVENTS

On December 10, 2024, at 1036 hours., CAL FIRE San Diego Unit Emergency Communication Center (SDU) received a report of a vegetation fire burning near Marron Valley, approximately 1 mile SW of Barrett Junction. The size-up from the first arriving units indicated the fire was wind-driven and well-established at approximately 25 acres with a high rate of spread. The incident commander requested additional units, including air assets. The total number of units ultimately assigned to the incident included 20 engines, 4 water tenders, 8 hand crews, 2 dozers, 2 helicopters, and fixed-wing aircraft as available. The large number of resources and change in conditions allowed for the release of personnel toward the end of the daytime operational period. Consequently, significant resources were at the scene when the IC declared a fireline emergency and initiated an incident within an incident (IWI) protocol at approximately 1645 hours.

The IC had assigned crews on the east and west sides of the fire. Forward progress of the fire in Division Alpha had been stopped, and fire activity had significantly decreased. Air assets were ineffective due to higher altitude winds dissipating drops. Command staff at the scene had a concern that the incomplete burn on the northwest side of the fire would result in material moving downhill, getting into the vegetation in the drainage at the bottom of the slope, and then burning back toward the crews working uphill or moving up the other side of the slope. The objective was to cut a containment line around the northwest aspect of the fire. This area has more vegetation and steep terrain. San Diego Crew 1 (SDC1), San Diego Crew 3 (SDC3), and San Diego Crew 4 (SDC4) were assigned to Division Yankee and started working toward their objective. Crews at the scene recognized that the incident would likely continue into a second day, so crews continued to work into the night.

As crews established line containment in their respective areas, the DIVS and two other Captains established lookouts uphill and had a good vantage point on the assigned area. While primarily concerned with the fire activity, each identified that the steep, rugged terrain presented its own hazards.

**1640 hours** - The Captain (C1) assigned to lookout from Crew 1 heard a snap, like a twig breaking. He looked over and saw the rocks shift, and a boulder began to roll downhill, gaining speed. The lookouts began yelling "ROCK" several times and waving their arms to alert personnel at the scene. The boulder gained speed before striking two crew members from SDC4. The puller was thrown approximately ten feet from the point of impact, and the boulder pinned the sawyer's leg. According to witness testimony, the time from the boulder becoming dislodged to the impact was approximately 5 seconds. SDC1 Engineer witnessed the impact, and the crew's Captain (C4) requested assistance. Crew 4 Captain (C4) made contact on the VHF tactical channel, indicating a fire line emergency. The situation was initially unclear to the IC as communications were challenging in the terrain. Information was relayed to the IC by other personnel at the scene.

Recognizing the need for a clear line of travel uphill in any rescue plan, SDC1 cut a personnel line from the incident location to the road above.

**1646 hours** - Border IC notified San Diego that hand crew members had been struck by a boulder. The IC requests ALS transport, an air ambulance, and a hoist-capable helicopter. San Diego Fire-Rescue Brush 10 (BR10) was approximately 1/4 of a mile away and staffed with three firefighter/ paramedics. They were about to be released from the incident when they heard the emergency traffic on the radio and initiated a response with a CAL FIRE firefighter paramedic who brought a Stokes litter.

While the IC requested resources, San Diego Crew 4 members rendered aid. The firefighter who had been thrown by the boulder was conscious and complaining of a leg injury. The firefighter who was pinned under the boulder was freed as the crew used fireline tools to lift the boulder and extricate the victims.

Recognizing that there would need to be a clear line of travel up the steep hill, SDC1 cut a line uphill from the accident scene. As word spread on the incident of a fire line emergency, unassigned hand crews responded to help.

While BR10 and SDC4 rendered patient care, DIVS A developed a rescue plan. With sufficient manpower at the scene and a clear line of travel courtesy of SDC1's efforts, DIVS began organizing a "caterpillar" rescue evolution. This involved several dozen firefighters lining up shoulder to shoulder and passing the litter up the slope.

**1658 hours** - IC provides a status update that there are two patients: one with a leg injury in moderate status and one with a head injury in acute status. The IC communicated the incident location to San Diego for the hoist helicopter. IC requests an additional ALS ambulance for the second victim. A staging area and landing zone are set up at the Barrett Café.

**1702 hours** - SDFD Copter 3 contacts San Diego for patient and scene information.

**1708 hours** - SDFD Copter 3 advises the IC to have contingencies in place as, depending on conditions, they may not be able to fly or conduct hoist rescue.

**1713 hours** - IC requests US&R 36 as an emergency plan due to fading light, challenging terrain, windy conditions, and the hoist helicopter's unknown arrival time.

Division 3303 arrives at the scene and takes over scene management of the medical transport on 800 MHz channel 11F while IC manages the rescue on VHF. Medics 231 and 238 were dispatched to the incident. Medic 231 was directed up the truck trail to pick up the patient at the extrication point along the road, while Medic 238 was staged in the parking lot.

**1737 hours** - Copter 3 is canceled by Division 3303 because the first patient was extricated to the medic unit via the "caterpillar" to the waiting Medic 231.

Medic 231 moves up the truck trail to a point where it can be turned around and exits back to the medical staging area at the Barret Cafe. On the return trip, the second patient is brought up the hill and placed in the ambulance. The firefighter with the head injury is transported via medical helicopter, and the firefighter with the leg injury is transported by ground ambulance.

## **INJURIES/DAMAGES**

**Injuries:** Patient #1 suffered head trauma and a back injury.  
Patient #2 suffered a leg injury and blunt force trauma.

**Damages:** Patient #1 helmet was severely damaged by the boulder strike.

## **Applicable Safety Policies**

CAL FIRE Safety Handbook 1722, Head, Neck, and Ear Protection

CAL FIRE Safety Handbook 1724, Hearing Protection

## **SAFETY ISSUES FOR REVIEW**

- Ensure personnel wear the appropriate personal protective equipment (PPE) for the work being performed.
- Properly place lookouts at good vantage points to maximize the probability of early notifications of hazards.
- Scout terrain and take notice of heavily burned areas for the soil stability where rocks or debris are present.
- Sound is a barrier to situational awareness.
- Effective and appropriate deployment of resources available is key to a successful outcome.
- Ensure radio communications are adequate on the fireground.

## INCIDENTAL ISSUES/LESSONS LEARNED

- Personnel were wearing a department-issued wildland firefighting ensemble. NFPA 1977, Standard on Protective Clothing and Equipment for Wildland Fire Fighting
  - The individual with the head injury had an ANSI Z89.1 compliant helmet, which is designed to manage the force coming on the crown of the helmet, not laterally as in a boulder strike.
  - Sound is a significant barrier to situational awareness. Neither of the impacted personnel heard the shouted warnings.
- Lighting for hand crews during civil twilight presented a challenging work environment.
  - Members of the hand crews advised that the supplied lighting was not adequate lighting for the environment.
- Multiple experienced lookouts had good vantage points oriented to the primary perceived threat, a “dirty burn” in the drainage that the IC had identified as having the potential to spread based on the projected weather conditions.
  - The alarm was sounded early upon identifying the hazard and declaring an emergency.
  - Incident staff communicated effectively with dispatch and responding units via VHF and 800 mhz. radios.
  - The escape routes were readily accessible, but the time factor prevented the team from exiting the boulder’s path of travel.
  - As the terrain was scouted, no boulders were explicitly identified as particularly precarious or needing to be avoided. The brush was later described as being “nuked out” and burned down to the soil. Personnel at the scene suggested that heavy brush on the ground may have been supporting the boulder.
- Operational briefings were effective for the incident. Officers clearly understood the leader's intent and incident objectives and believed it was within their crews' capabilities.
  - Interviews with the IC, DIVS, and Crew Captains indicated that the officers clearly understood the mission. Several individuals on the crew and from outside units interviewed questioned the risk assessment of the assignment and that there was more risk than gain in cutting line at that time and place. Due to the length of time between the incident and the interview, hindsight might be affected in light of the incidents that occurred. Officers all stated they performed safety briefs and understood the leader’s intent. The crews all understood their jobs at the task level, and there were no reported assignment turn-downs on the incident. There was a clear communication of risk and the need to perform the assignment as light was fading, and there were concerns about operating in the border region after dark.
- CAL FIRE fireline emergency training regarding the Dutch Creek Incident was referenced as foundational to the execution of the rescue.

- Officers at the scene effectively and simultaneously pursued multiple lines of effort for the rescue to ensure timely extrication and effectively utilized the primary, alternative, contingency, emergency (PACE) model in this process.
- The officers' investment in crew training were critical in providing patient care with line EMTs, and ALS support working together seamlessly for the rescue.
- The rapid organization and deployment of the available personnel was crucial to the mission's success.
- The terrain in this incident is common in San Diego's backcountry. The success of this extrication was due to the rapid decision-making and use of the resources at hand, in this case, personnel. The caterpillar rescue technique would not have been possible without the dozens of personnel assigned to the incident. A rescue helicopter mission had a low probability of effectiveness due to the time of day and weather conditions. The requested Type 2 US&R unit would have been challenged to operate in an off-road environment requiring alternate means of transferring equipment and rescuers. The value of REMS assigned to fires around the County of San Diego was mentioned in several interviews.
- Ultimately, there is no way to know how and why the boulder decided to begin rolling when it did. Personnel at the scene stated that a Type I helicopter had flown low over the site approximately 30 minutes before the boulder fell. While the fire apparatus used the road, there were no stops or idling. The material around the incident had been described as "nuked out," meaning it burned to the dirt. It was suggested that the brush beneath the boulder supported it, and after it burned away, the boulder simply snapped the brush under its own weight.

## RECOMMENDATIONS

**Situational Awareness**– Sound is a significant barrier to situational awareness. Emphasizing these limitations to saw teams is important to their safety and to those around them.

- Consideration for the use of airhorns, physical signals, and alternate hearing protection from other industries may be appropriate for review for saw operations.
- Recommend research on other options for noise mitigation that do not prevent personnel from hearing warnings.
- Adherence and emphasis on standard firefighting orders regarding LCES, fireline emergencies, and Lookout Situations (aka 18 Situations That Shout Watch Out).

**Technical Rescue Considerations**– Recommend that the County Chiefs create an operational risk management matrix for a consideration for the use and deployment of REMS units.

- The value of REMS assigned to fires around the County of San Diego was mentioned in several interviews.

**Training Recommendations:**

- It is recommended that crews be reminded about the dangers of rolling rocks during briefings, etc., especially when working in areas with disturbed soil and burned-out vegetation.
- Develop training (i.e. Safety Message) to address rolling rock safety and situational awareness and incorporate this training into all levels.
- Practice scenarios that include a fire line emergency and how to effectively extricate injured firefighters with improvised techniques and tools.
- It is recommended that all training records be kept in a central location. This greatly increases organization for all departments and will aid in future SIRT or OSHA investigations (for example, Vector Solutions).
- All members assigned to the Border 79 Incident were found to be in compliance with the CAL FIRE minimum qualifications (see references).

**References:**

ACCEPTABLE DOCUMENTS Used for FFI, FFII, and FAE  
[CA OSFM Professional Certifications](#)

[NWCG IRPG \(2025\)](#)

[NWCG Fireline Orders](#)

Approved by:

This review was conducted by the following San Diego County Health and Safety Section's Serious Incident Review Team (SIRT) members.

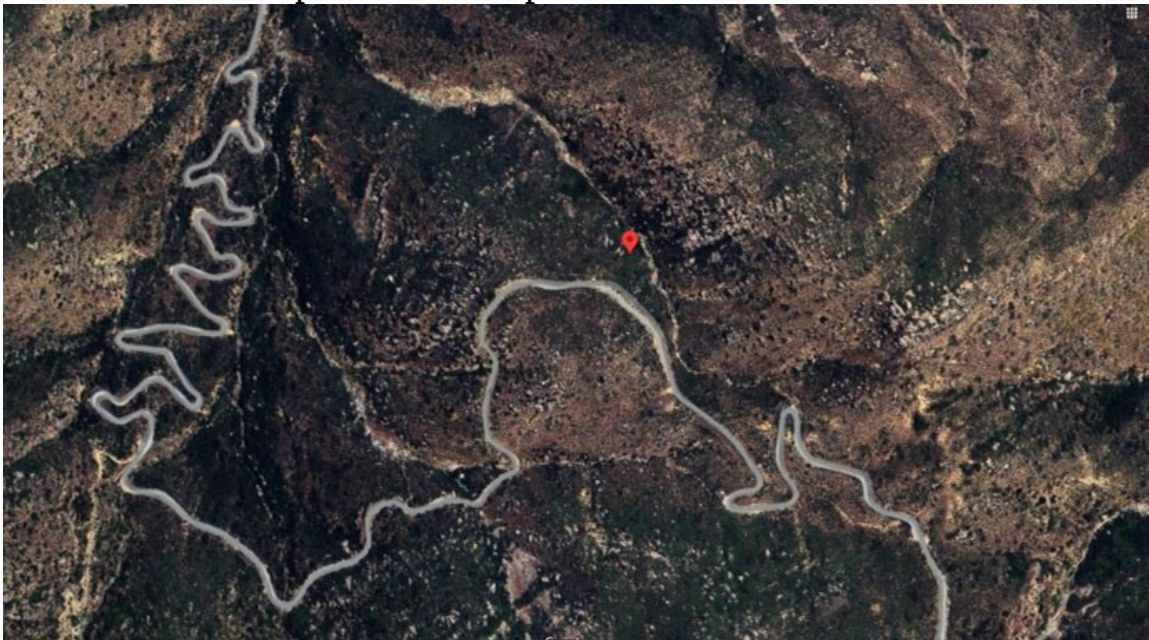
- Ted Porter: SIRT Sub-Committee Co-Chair – Coronado – Battalion Chief
- Brendan Barahura: Team Lead – Chula Vista Fire Department – Battalion Chief
- Rob Brown: Lead Investigator – San Diego Fire-Rescue – Lifeguard Sergeant
- Kyle O'Neill: Investigator – San Diego Fire-Rescue – Captain
- Kyle Smith: Investigator Trainee – San Diego Fire-Rescue – Battalion Chief
- Dan Twohy: Safety Representative – CAL FIRE – Battalion Chief
- Isaac Fisher: Document Specialist – Chula Vista Fire Department – Engineer

## PHOTOS/SITE DIAGRAMS/MAP

Map 1 – Regional Map



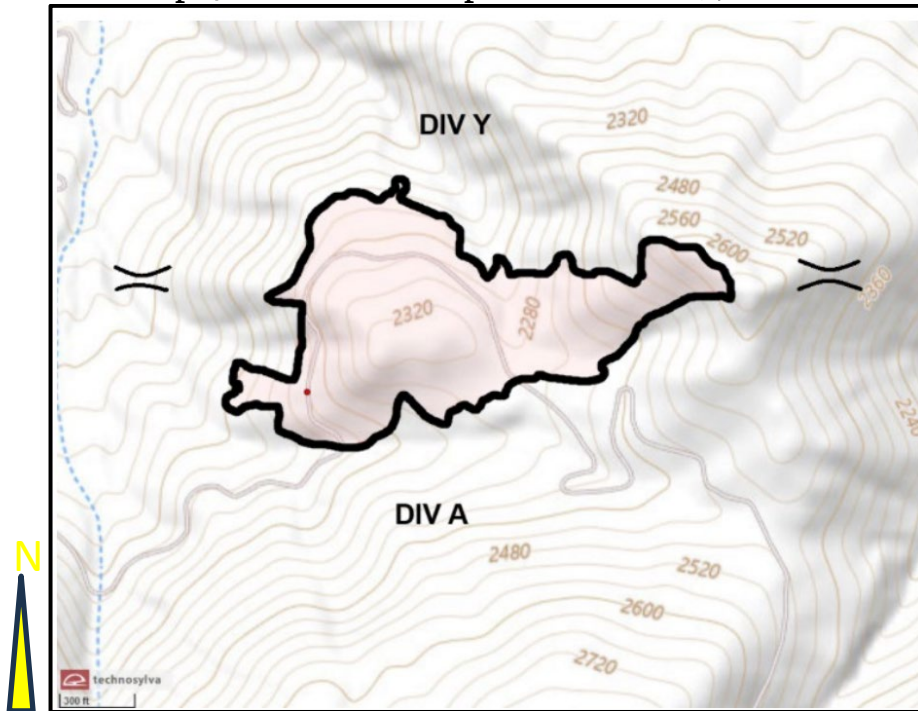
Map 2 – Local Map with Incident Location



Map 3 - Map of Fireline with Incident



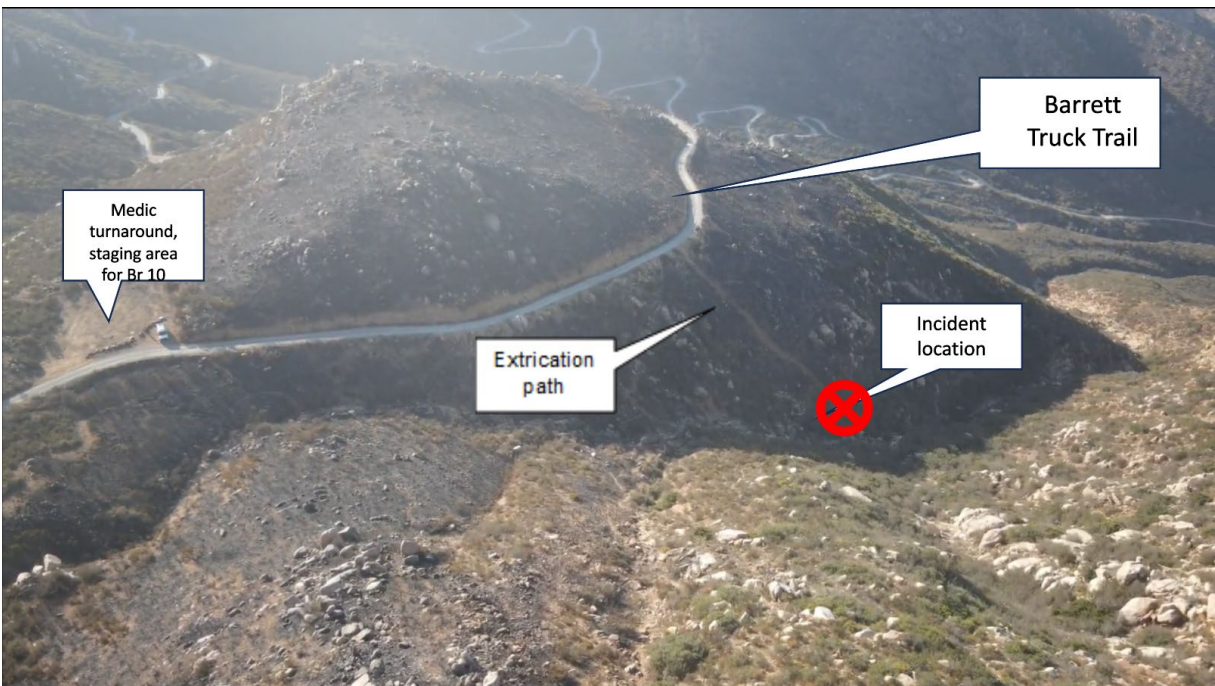
Map 4 - Fire Area Map from Border 79 IAP



Picture 1 – Aerial Reconnaissance Photo of Border 79 Fire



Picture 2 – Aerial Photo of Incident Site



Picture 3 – Looking Uphill from Incident Site



Picture 4 – Boulder and Victim PPE



Pictures 5 & 6 – Caterpillar Rescue Evolution



[Rescue Video 1](#)

[Rescue Video 2](#)

[Rescue Video 3](#)