

# GREEN SHEET

California Department of Forestry and Fire Protection  
(CAL FIRE)

## Informational Summary Report of Serious CAL FIRE Injuries, Illnesses, Accidents and Near Serious Accidents



### Dozer Rollover Fatality

July 26, 2016

### Soberanes Incident

16-CA-BEU-003422

16-CA-BEU-003518

### California Southern Region

A Board of Review has not approved this Informational Summary Report. It is intended as a safety and training tool, an aid to preventing future occurrences, and to inform interested parties. Because it is published on a short time frame, the information contained herein is subject to revision as further investigation is conducted and additional information is developed.

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## SUMMARY

On Tuesday, July 26, 2016, at approximately 11:00 PM, a Call-When-Needed (CWN) dozer was operating on Division T of the Soberanes Incident in Monterey County, CA. The dozer was attempting to access an area where fire line was to be constructed. In order to access this area, the dozer had to maneuver around an engine which was pumping a hose lay and was blocking the lower roadway which led to the area where line was to be constructed. The dozer traveled east on a parallel road above the lower road, backed up and turned to travel down an embankment towards the lower road. The dozer proceeded slowly over the embankment in an effort to reach the lower road. During this maneuver the dozer rolled onto its left side and roof. During the rollover event the dozer operator was ejected from the cab and became pinned underneath the left sweep of the dozer.

Fire line personnel who witnessed the event immediately responded and determined the operator was deceased.

## CONDITIONS

### **Weather:**

Temperature - 78° Fahrenheit

Relative Humidity - 29%

Winds – South at 2 MPH

*Observations were taken from the Bottchers Gap (Elevation 2057 feet) portable RAWS on July 26, 2016 at 10:47 PM.*

Temperature - 56° Fahrenheit

Relative Humidity - 87%

Winds – 0 MPH

*Observations were taken from the Big Sur (Elevation 354 feet) RAWS on July 26, 2016 at 10:00 PM.*

### **Fuel Type:**

Fuel Model 5 (Brush), 8 (Timber, Coast Redwood)

### **Road Conditions:**

The roads at the accident site are single lane unpaved (dirt) and unimproved. The road grade was approximately 22% for the upper road. The upper road was passable with fine powder and the lower road was passable, however was blocked by fire equipment.

### **Topography:**

The accident took place mid-slope on a north facing aspect in a predominantly coastal Redwood forest, at an elevation of 1371 feet.

### **Fire Behavior:**

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At the time and location of the accident, the fire behavior was creeping and mostly backing fire, with roll out causing some short runs, and isolated single tree torching.

### **Equipment**

1999 Caterpillar D6M XL with a fully enclosed cab, six way blade and rippers. The steering configuration can be described as left side lever steering.

## **SEQUENCE OF EVENTS**

On Friday, July 22, 2016 at 8:48 AM, a vegetation fire in Monterey County was reported approximately one mile east of Soberanes Creek in Garrapta State Park. By Tuesday, July 26, 2016 at 7:00 PM, the fire burned more than 23,500 acres and was 10% contained. Almost 3,000 personnel were assigned to the fire.

On Tuesday, July 26, 2016 at approximately 7:00 PM the oncoming operator (OP1) for Dozer 1 (DZR-1), a call-when-needed (CWN) bulldozer assigned to Division T, arrived at the incident. DZR-1 was working for a Crew Strike Team Leader (STL) constructing dozer line. OP1 relieved the outgoing operator (OP2) at approximately 9:00 PM and together they serviced DZR-1. DZR-1 was located below a fork in the road at the intersection of Green Ridge Road and the driveway leading to 37771 Green Ridge Road.

OP1 was briefed by OP2 about the current assignment. OP2 and the STL walked the lower road to identify the proposed dozer line. Later, OP1 and OP2 also walked the lower road to discuss the proposed fire line. OP1 and OP2 were joined by the STL and together they discussed the proposed dozer line and how to access the lower road which was blocked. Access to the assignment was off of the lower road which was blocked by a Type 3 engine (E-1) pumping a hose lay that was supporting a firing operation.

OP1, OP2 and the STL discussed gaining access around E-1. OP1 identified the area behind E-1, which is an 82% slope, as a less than ideal location to transition from the upper road to the lower road. OP1 identified the preferred transition area as approximately 50 yards up the upper road, which is a 42% slope leading to the lower road.

At approximately 10:57 PM OP1 walked DZR-1 up to the upper road. OP1 identified a hoselay across the road and built a berm to protect the hoselay. OP1 continued travelling up the upper road. Prior to reaching the proposed location to access the lower road, OP1 encountered Division T Supervisor (DIVT) driving down the upper road. DIVT backed up and positioned faced into a driveway while OP1 began backing down the upper road. Engineer 2 (ENG2) with E-2 observed DZR-1 backing down the road and turning DZR-1 to the left. ENG2 then saw DZR-1 slowly edge out over the embankment until DZR-1 reached the tipping point, at which point DZR-1 went down the embankment and tipped towards E-1.

Fire Fighter 1 (FF1) from Engine 2 (E-2) was on foot approximately 10-15 yards west of E-1 and observed OP1 move DZR-1 back and forth and position DZR-1 facing the downhill embankment. FF1 then saw DZR-1 go over the embankment.

The Engineer (ENG1) from E-1 was at the pump panel of the engine when he observed the blade of DZR-1 coming over the embankment between the upper and lower roads behind E-1. As DZR-1 progressed to the balance point, ENG1 observed the front of DZR-1 begin to drop and DZR-1 slid down the embankment between the two roads. The blade struck the lower edge of the embankment and DZR-1 began to roll to the left, toward the back of E-1. ENG1 retreated toward the front of E-1 and he could hear the engine of DZR-1 rapidly accelerate. DZR-1 rolled onto its left side and the guarding of the air conditioner unit came into contact with the rear bumper of E-1. During the rollover event OP1 was ejected from the cab and was pinned beneath the left sweep (dozer protection bars mounted from the rollover protection system to the engine compartment) of DZR-1.

A paramedic in close proximity to the area immediately responded on foot and pronounced OP1 deceased. DIVT notified Soberanes Communications of the accident approximately 11:05 PM.

Preliminary evidence at the scene indicates OP1 may not have been wearing the lap-style seatbelt on DZR-1. Additionally, the preliminary evidence indicates that it is likely that the left door was open.

## **INJURIES/DAMAGES**

OP1 suffered multiple blunt force trauma injuries which resulted in the fatality. Damage to the dozer includes a seized engine, light damage to the cab, and sweeps.

## SAFETY ISSUES FOR REVIEW AND LESSONS LEARNED

**Wear your seat belt** whenever a vehicle is moving.

- Review [CAL FIRE Policy Handbook 6784](#)

Operators of **any vehicle** should ensure doors are **closed and secured** prior to moving

From the **10 Standard Fire Orders**

- Fight fire aggressively, but provide for safety first
- Give clear instructions to personnel and ensure they are understood

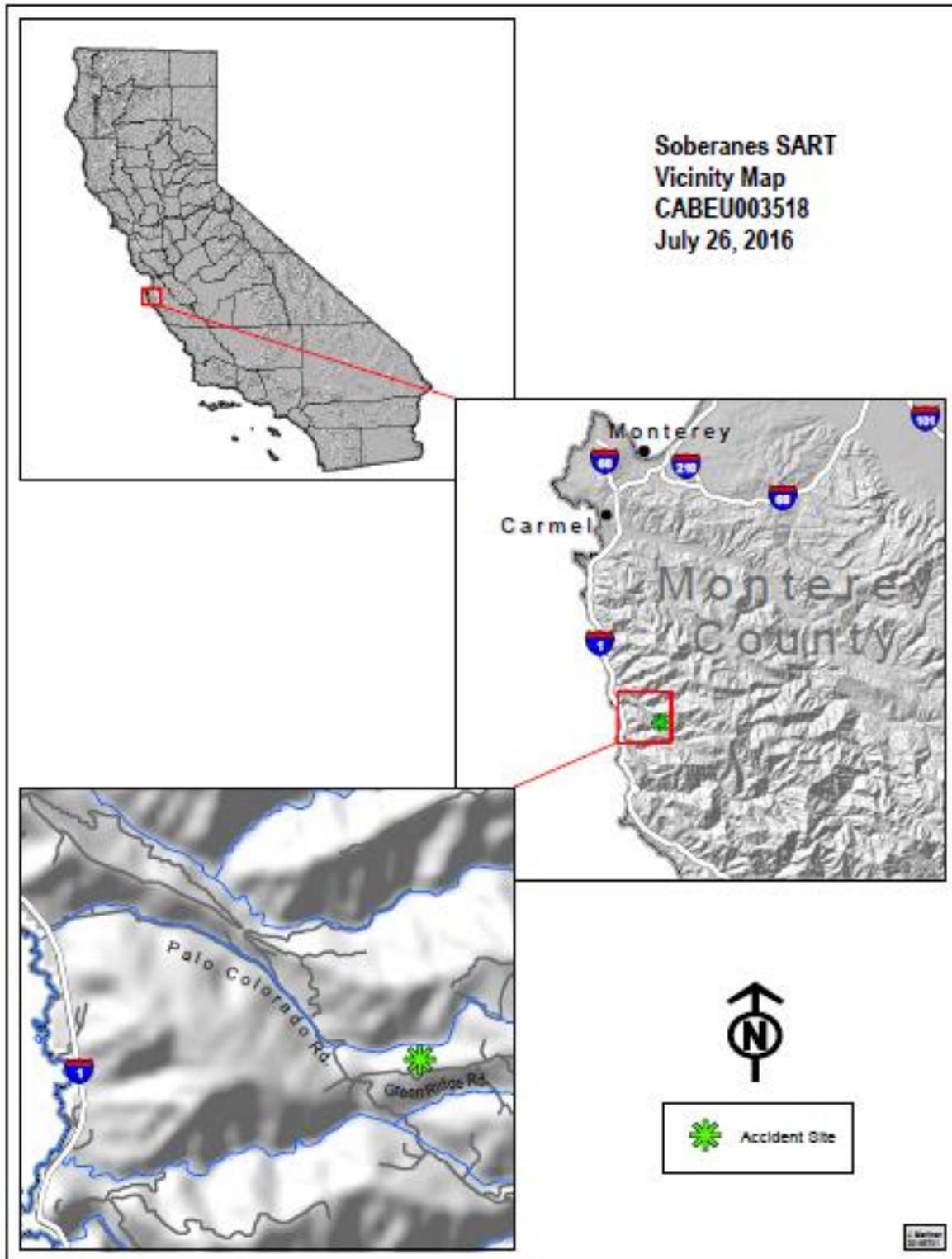
From the **Eighteen Situations that Shout “Watch Out!”**

- Working in country you have not seen in day the light.
- Instructions and/or assignments are not clear.

Use existing Leadership and adjoining forces to identify safety concerns and hazards.

- Provide fireline safety briefings to newly assigned personnel.
- Familiarize yourself with the Incident Within an Incident (IWI) procedure.

## PHOTOS/SITE DIAGRAMS/MAPS

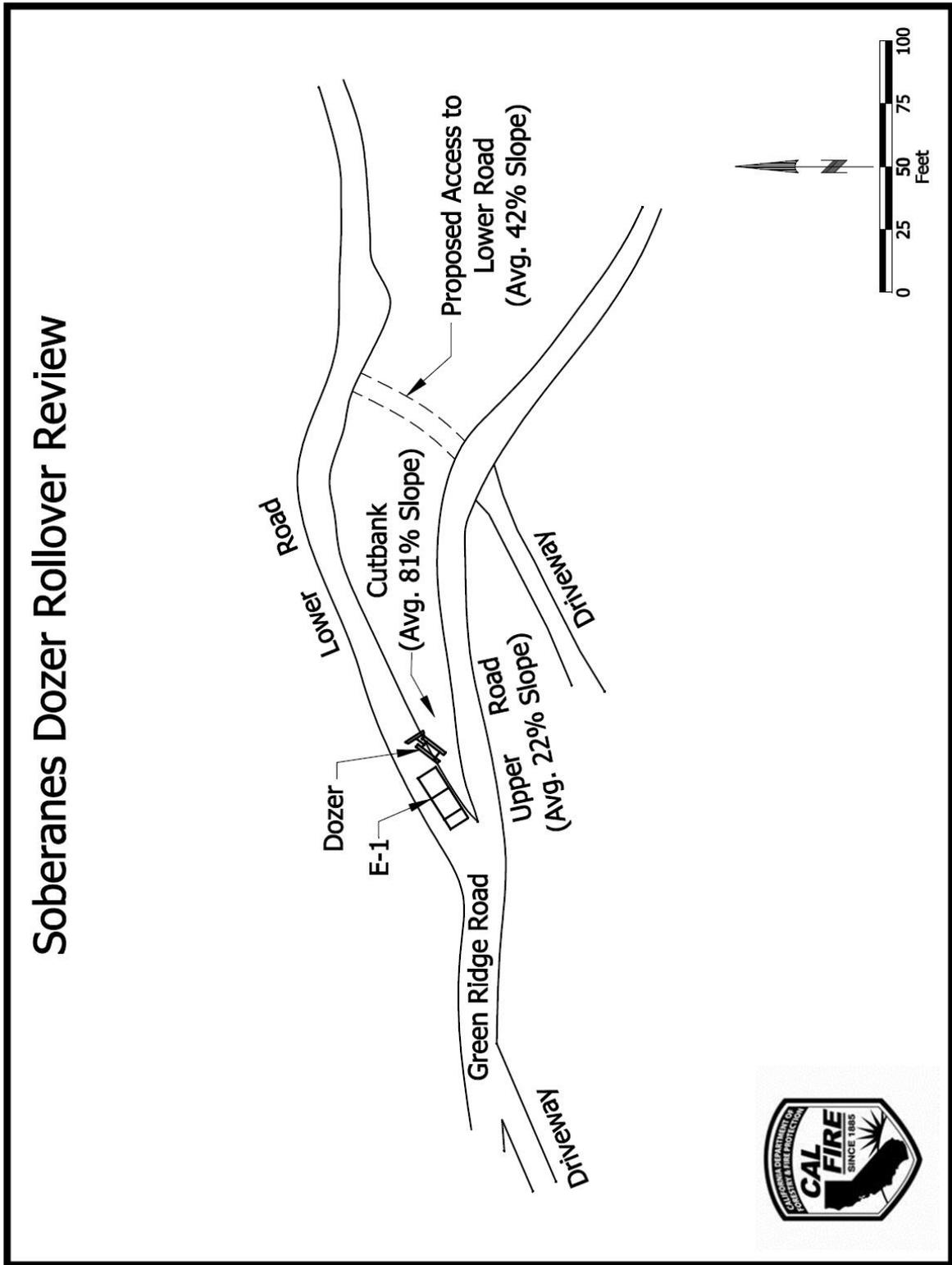


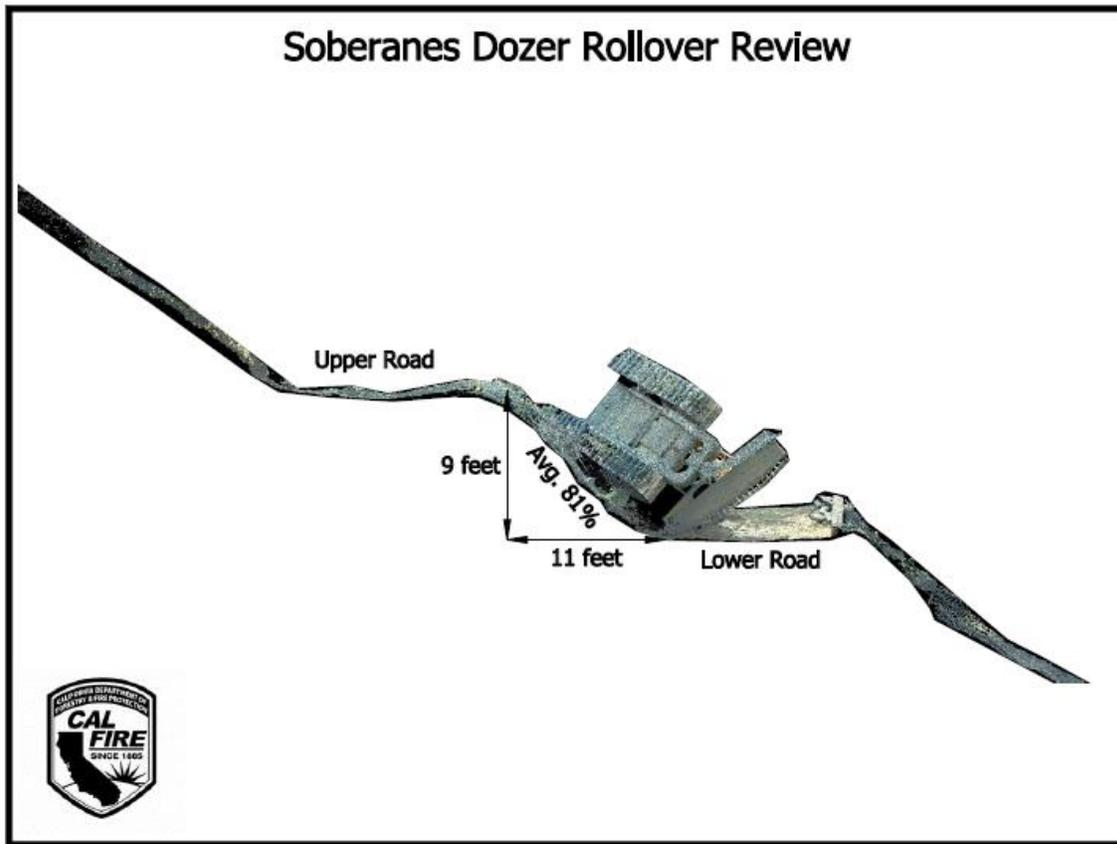
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