2014 STORMS AND WATER BOARD INVOLVEMENT IN BATTLE CREEK
Introduction

- Three large storms in Battle Creek watershed during winter 2014.
- Field Observations from each event.
- Effects of each storm with input from USFWS and PG&E.
- Causes? Controllable sources?
- Comments
October 26, 2014 Storm

- Thunderstorm event in watershed = high intensity, short duration storm.
- Closest rainfall gauge in Shingletown registered 3.12 inches of rain.
- Observations included channel scour, high turbidity, and failed watercourse crossings.
Effects
Effects
Effects
Oct 2014 flow/silt event
Silt in egg incubation trays
Oct 2014 flow/silt event
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Oct 2014 flow/silt event
Silt in egg incubation trays
Oct 2014 flow/silt event
Water flow through egg incubation barrel
Water in fish rearing raceways
December 3rd Storm Events

1. The December 3, 2014 storm was another high intensity, short duration storm.

2. Per the DWR stream data, it was the 5th highest flow ever recorded on Battle Creek, with peak flows reaching approximately 15300 CFS at Coleman Fish Hatchery.

3. The storm has been classified as a 15-year event, based on flow recorded at the Colman Fish Hatchery.

4. The storm severely impacted the South Fork of Battle Creek with flows overwhelming the DWR stream gauge and overtopping the bridge along Manton Road.
View of Canyon Creek at lower bridge before and after peak storm intensity. Photo on left taken at 12:50 PM, photo on right taken at 1:30 PM.
Woody Debris Along South Fork at Manton Road Bridge 12/4
Dec 3, 2014--aftermath
Dec 3, 2014--aftermath
Dec 3, 2014--aftermath

Note debris line as indication of water level
Dec 3, 2014--aftermath
The December 11, 2014 storm was less intense than the October or December 3rd storms, however the storm had high wind levels.

Abundance of wind thrown trees, making it difficult to access areas of concern.

Widespread flooding associated with this storm.

Peak Flows reached 12700 CFS at Coleman Hatchery.
Gover Road below Coleman Hatchery
Digger Creek at Ponderosa Road
Ash Creek at Wildcat Road
Fish ladder and outside adult holding ponds inundated
Typical BC Channel width = 90 feet
Water close to back of spawning building
PG&E Infrastructure sustained damage during the recent storm events.
The CVWQCB is tasked with identifying and addressing **CONTROLLABLE** sources

- Difficult post-fire to find controllable sources
- Salvage logging effects vs. post-fire effects
- Focus on identifying direct sediment pathways such as roads or permitted projects
Road leading to lower bridge on Canyon Creek 12/11/2014
View of native road after road October 26, 2014 storm showing minor signs of erosion, June 2014.
Paved Rolling Dip Along Rock Creek Road
Digger Butte, May 2014
Digger Butte, November 2014
Salvage Logging w/ Contour Tilling
Water Board / UC Davis Study