

Stream
Reaches
Surveyed
For Hazard
Analysis

10/2008

BAER

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DS3

DS1

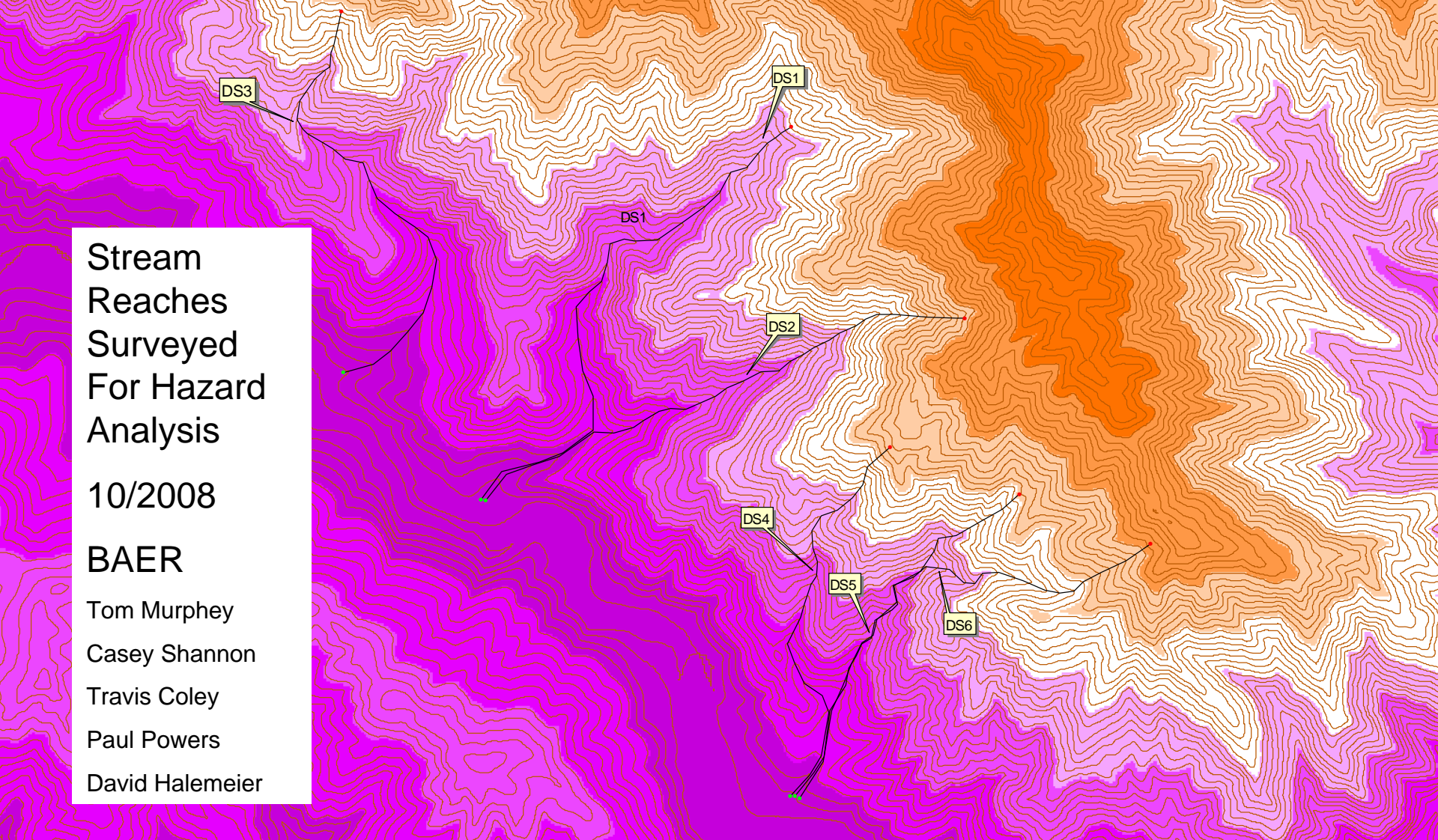
DS1

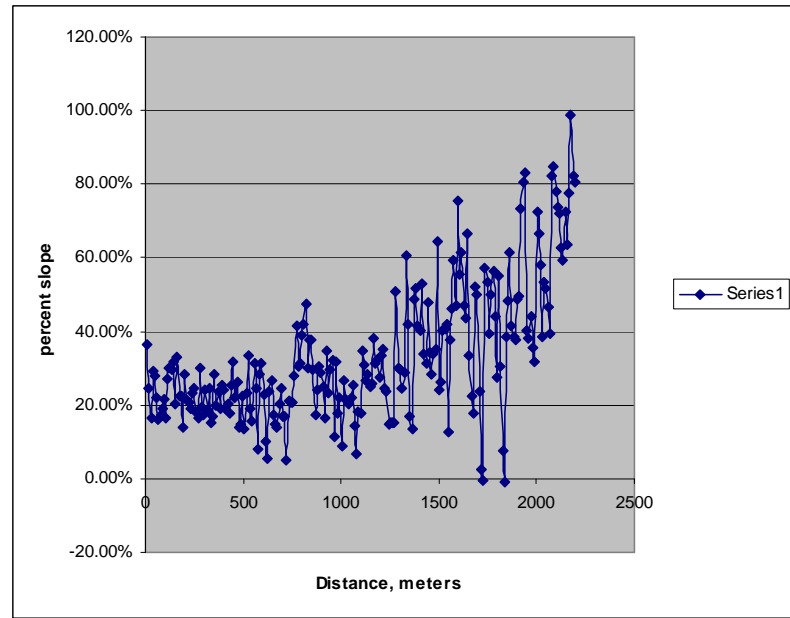
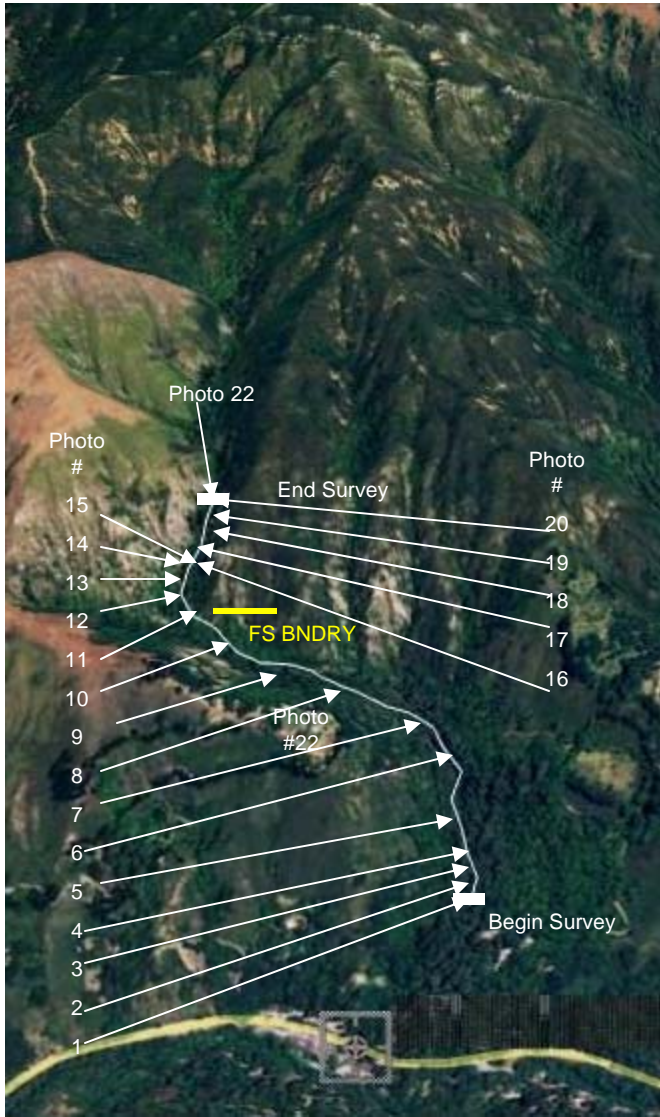
DS2

DS4

DS5

DS6





Stream Segment: 90 % erosional; 5% depositional; 5% transitional

Stream Azimuth Effects: Deposition occurs at all confluences. Small in size depending upon wood load. All confluence >60 degrees

Stream Gradient: Using 2x valley width , gradient ranges from 15 to 30%. Within falls areas gradient exceed 70 %

Valley Character: Very young with steep 50-110 % gradient side slopes containing an extreme sediment load from downslope migration of material highly unstable due to volume of dry ravel.

Width: 30-100'

Tree type/size: Redwood overstory 10 – 100 inches with predominate size class being 40-70 " class. Ca. Laurel. Sycamore, Tan oak and shrub species found in the understory

Substrate condition: > 90 % embedded, with 30% boulder; 30% gravels/sands; 10% cobble; 15% small boulder; 15 % bedrock. All angular and mobile at high flows (> 10 year flow).

Potential sediment sources: Upper banks; head cuts, and upslope ravel.

Potential wood for anchoring: Low due to substrate being so mobile and gradients being above 12%. Down material is either too large to move or is buried by dry ravel from side slopes.

Access: Private access is within 1000' of federal land. Foot travel is dangerous due to unstable material and loose material sloughing in from side slopes.

Safety factors: High risk due to sideslopes, stream gradient, and availability of rock raveling down side slopes.

Phenegar Creek

DS3

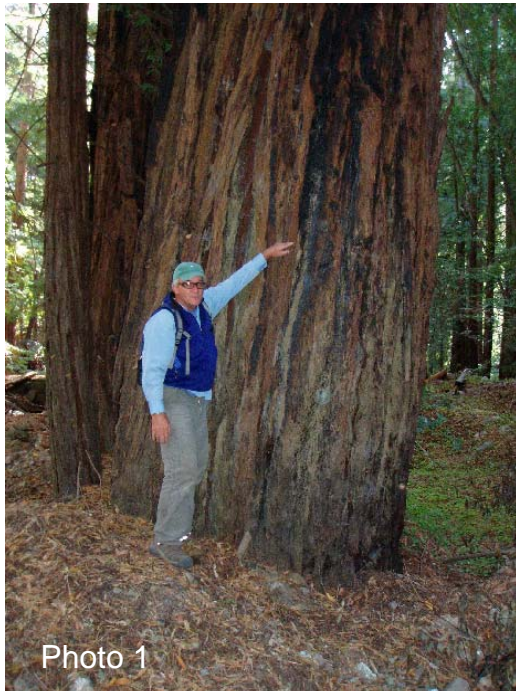


Photo 1

Photo 1: Sediment line from previous fluid flow through area (top of hand). Deposition on uphill side of tree. *Private Land*



Photo 2

Photo 2: Landowner has piled slash < 50 feet from creek on terrace from previous failure.



Photo 3

Photo 3: Logs have been placed on channel banks along with slash. Placed on the outside margins of the flood terrace.

Photo 4:

Redwood tree felled and placed on terrace above the creek. Top log is cable with a single strand of 1/2 inch cable. Creek is at the end of the logs below stump.

Note: Valley bottom widens out at this point of these photos and is 150- 1500' across. Historic failures have utilized this area to disperse energy and drop bedload. Structures are being placed to maintain energy and bedload will travel further down stream. This area would be the best location along the entire stream system to place energy dissipaters. Channel should be loaded with "Large" wood to reduce energy and aid the channel in utilizing its flood plain and disperse material across its historic terrace. Area originally was a Delta fan from material being lost down this drainage.



Photo 4

Photo 6: Private road pulls away from stream channel and heads east to old homestead. Channel upstream is 40 feet across at old terrace heights and 12 feet deep. Confluence exists to the right facing upstream. (Photo taken facing upstream). Channel banks are vertical to 100 % slope. Bottom width is 15 feet on the average. Channel gradient 30%. Wood presence is 2 pieces per 100 feet and is redwood dominated. Margins of channel contain standing Redwood with Ca. Laurel understory.



Photo 6

Photo 7: Depth of channel depicted by person. (person is 6'3" tall). Gully nature of channel is eroded alluvial deposits from previous failures and colluvial deposits from dry ravel. Substrate material is cemented together by what appears to be calcium carbonate. Once dry ravel is wetted it sets up to firm footing and slope stability.



Photo 7

Photo 8: Standing at the top of a 8' headcut and looking down stream. Cut is currently stabilized by embedded Redwood logs. Material has been weakened by fire. 30 % of material burned.

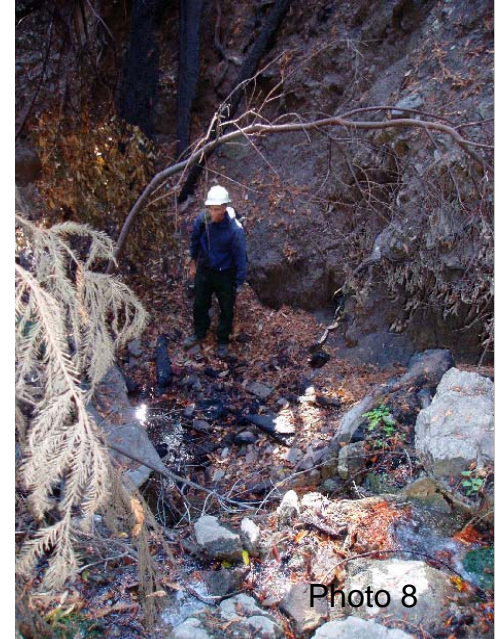


Photo 8



Photo 9

Photo 9: Standing on old terrace on RHB, (west side) and looking upstream. Deposits are maintained due to a gully plug of large wood downstream. Deposits are available for movement due to wood being weakened from the fire. 30-45% wood consumed.

Photo 10: Center of old rotation slide. Toe is being removed by flow. Channel right, west side.



Photo 10

Photo 11: Facing downstream Stepped nature of channel continues with head cuts. Wood and large boulder predominate control mechanism. Bottom width 30'.



Photo 12: Step created from large boulder. Facing upstream. Gradient 28% ; 10' step.



Photo 13: Step created from wood deposition at confluence of side trib entering on RHB, west side. Channel is 40 feet wide at top of terrace and side slope. Facing downstream. Gradient 23% ; 6' step.



Photos 14, 15, and 16; represent the steep, 28% channel gradient and the steps that occur within this reach. Stored sediment occurs behind all structure but is easily mobilized due to gradient. Wood is being buried and storing sediments nicely.

Photo 14

Photo 15

Photo 16

Photo 13

Photo 12

Photo 11



Photo 17:



Photo 18:

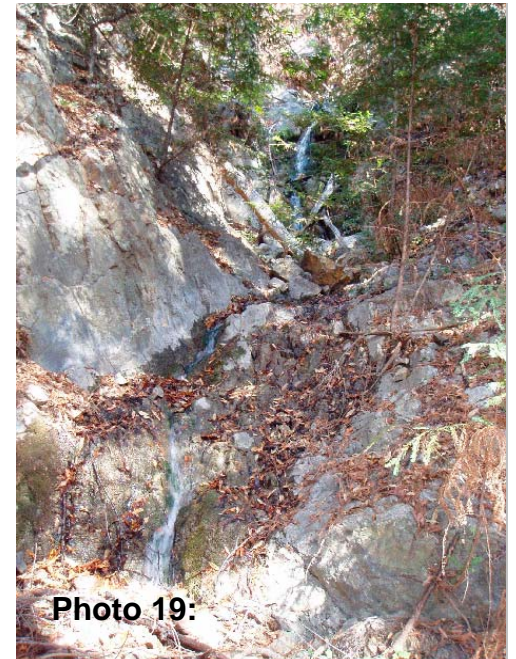


Photo 19:

Photos 17 and 18; Example of v shape of channel on Forest Service and stored sediment related to boulder constrictions within the channel. Valley width is 15- 20 feet and bottom material is dominated by colluviums.



**Photo
20:**



**Photo
21:**

Photos 19,20, and 21; Gradient change to water falls. > 70% gradient



Photo 22/23:

Photo is taken from the road that access Michael Curtis property. Facing north one can see the inner gorge nature of the channel and the rock cliffs within the channel. End of survey.

