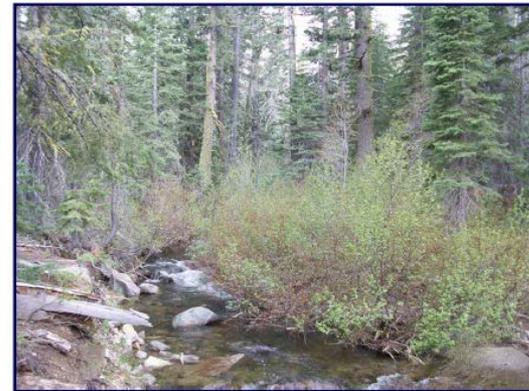


Site-Specific Riparian Management Projects Under THPs

- Promote more short-term response with active riparian management practices in watersheds with listed salmonids that might not otherwise occur under the more prescriptive FPR protocols.
- Goal was to develop and implement at least 2 **pilot projects** to demonstrate site-specific riparian management using THPs.

Site-Specific Riparian Zone Management:

Section V Guidance



Anadromous Salmonid Protection Rule Section V

Technical Advisory Committee (VTAC)

December 2012

Sacramento, California

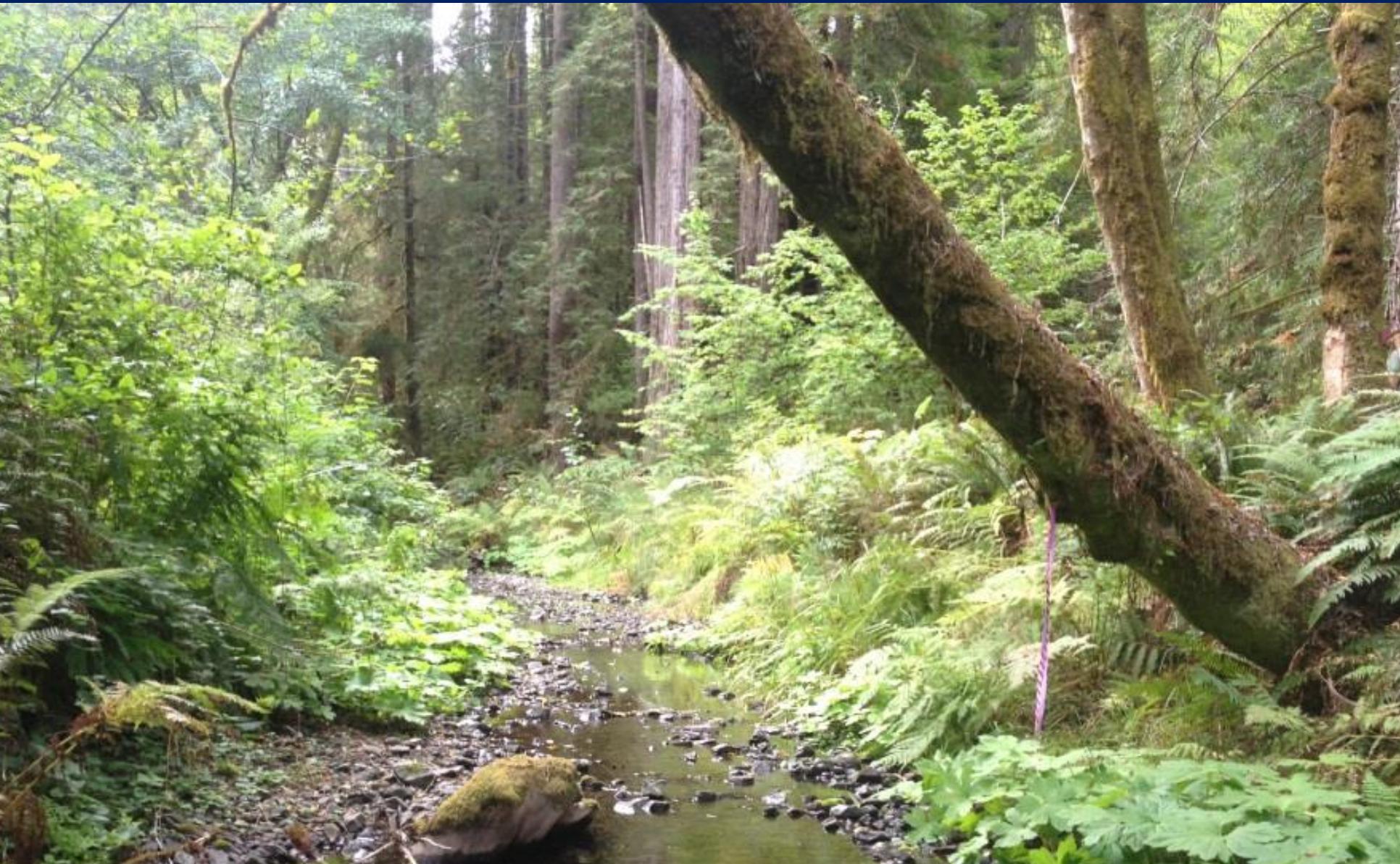


Primary Types of Potential Riparian Proposals

- A. **Placement of large wood** in fish-bearing watercourses using large conifers from the Core and/or Inner Zones.
- B. **Thinning trees** in the Core and Inner Zones to accelerate conifer growth.
- C. **Management** in the Core, Inner and Outer Zones of Class I watercourses to reduce the chance of catastrophic **wildfire** through the use of **fuel hazard reduction projects**.
- D. **Modifying the stand composition** of the Core and Inner Zone to restore conifer deficient areas or develop a more appropriate mixture of conifers and hardwood species.
- E. **Sediment Reduction** within Riparian Zones.

**THP 01-13-031 MEN
Mill Smith THP-Pre
Site No. 1—Campbell Global**

**6 sites where ~30 trees were felled along a 2,500 foot
stretch of Smith Creek, tributary to the Ten Mile River,
implemented August 2014**



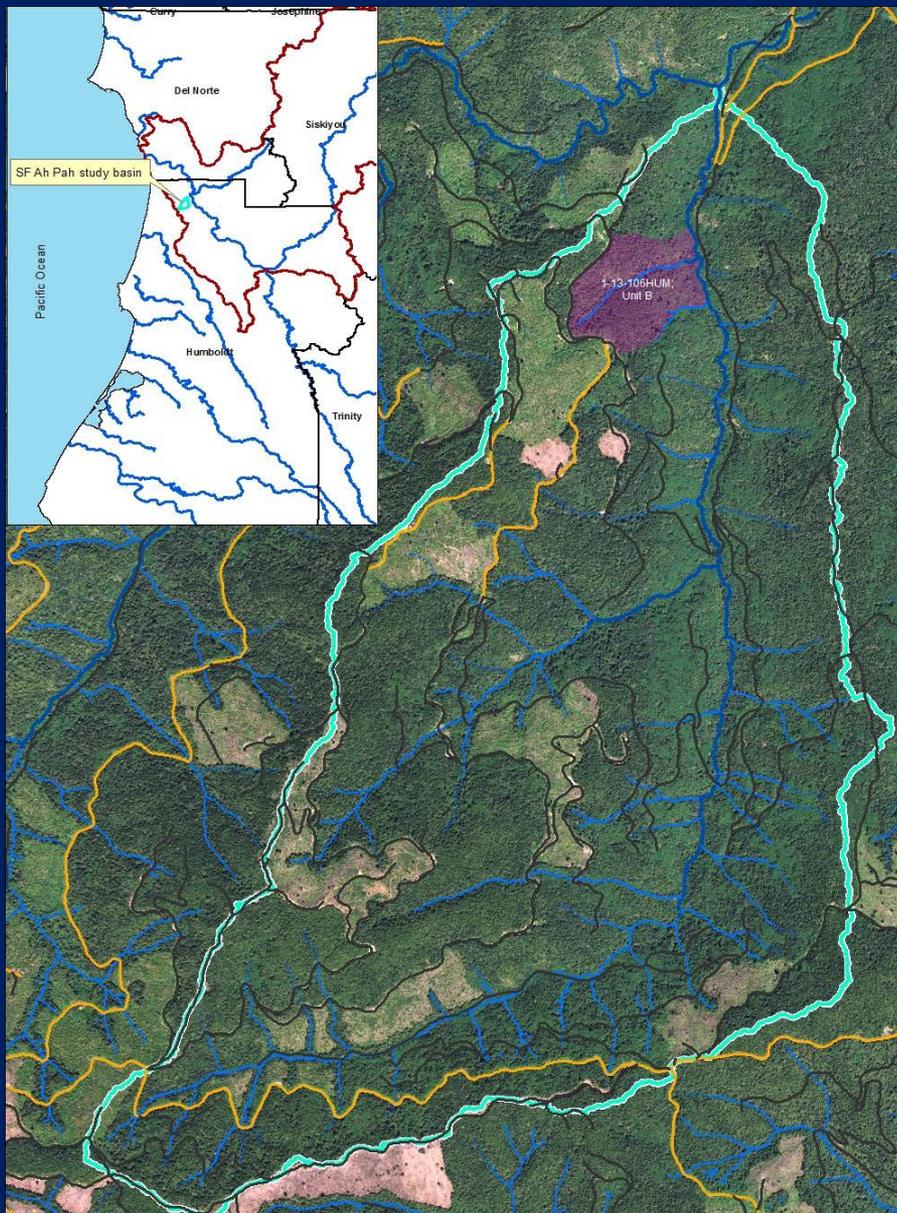
**THP 01-13-031 MEN
Mill Smith THP-Post
Site No. 1**



Green Diamond Resource Company

Riparian Canopy Experiment

- This is large research project in the lower Klamath River basin testing if thinning riparian areas to enhance light and nutrient input will improve salmonid production.
- Pilot phase will occur first.
- Received confirmation from NMFS on Nov 12th that they can proceed with proposed treatment of THP 1-13-106 HUM, Unit B (Class I watercourse).
- Major amendment to the THP to incorporate the riparian proposal via 14 CCR Section 916.9(v)(2) submitted to CAL FIRE on December 15th.

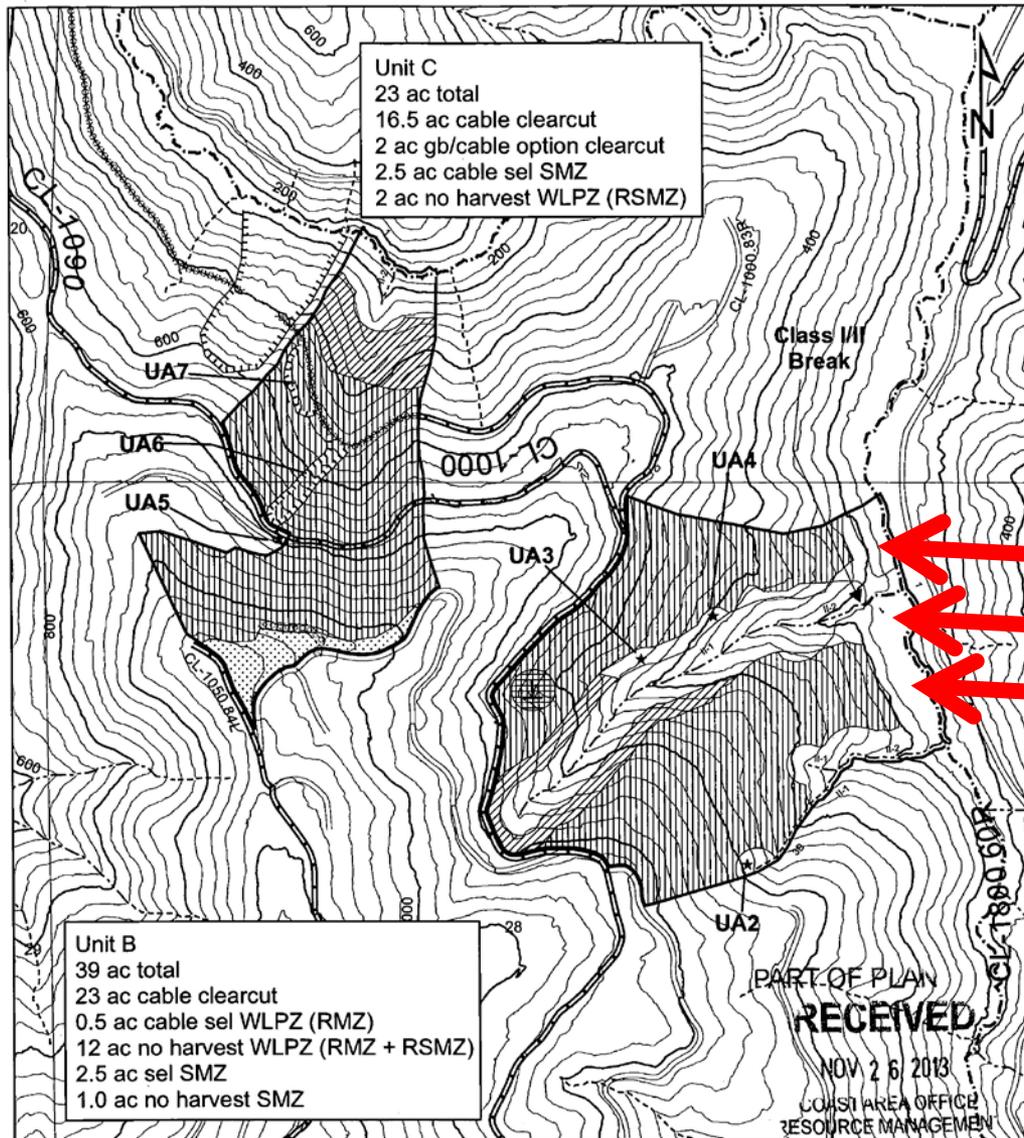


Map of South Fork Ah Pah watershed, showing location of THP 1-13-106 HUM, Unit B (purple polygon) where the initial riparian canopy treatment will occur

Legend

Road types	Stream classification	THP Unit
Rocked	Class I	SF Ah Pah study basin
Natural Rock	Class II	Lower Klamath (4th field HUC)
Dirt	Class III	Counties

0 0.25 0.5 1 Kilometers

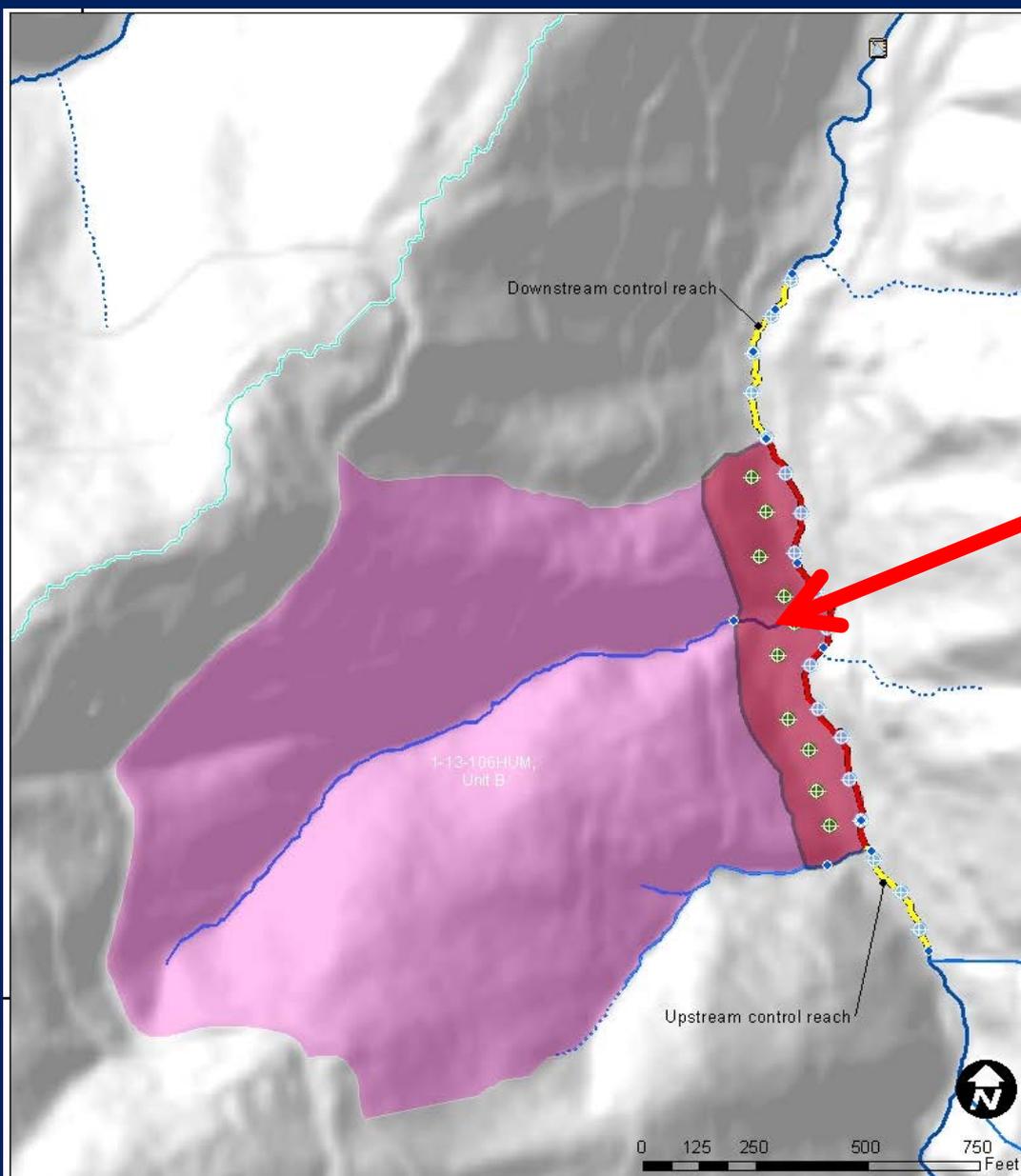


Unit C
 23 ac total
 16.5 ac cable clearcut
 2 ac gb/cable option clearcut
 2.5 ac cable sel SMZ
 2 ac no harvest WLPZ (RSMZ)

Unit B
 39 ac total
 23 ac cable clearcut
 0.5 ac cable sel WLPZ (RMZ)
 12 ac no harvest WLPZ (RMZ + RSMZ)
 2.5 ac sel SMZ
 1.0 ac no harvest SMZ

Class I
 watercourse
 to be thinned
 in the pilot
 phase,
 original THP
 map

<p>GREEN DIAMOND RESOURCE COMPANY</p>	<p>595 (CL1000/1050) 561302 Timber Harvest Plan THP 500 Map (2 of 3)</p>	<p>Sec. 20, 21, 28, 29, 32 & 33, T12N, R2E, HBM Humboldt County Located on the Ah Pah Ridge 7.5' USGS quad</p>	<p>Contour interval = 40 ft. Scale: 1:6,000 1 inch = 500 feet</p>		
<p>Unit B: Site Class II & Moderate EHR; Unit C: Site Class III & High EHR</p>		<table border="0"> <tr> <td data-bbox="994 1228 1178 1399"> <ul style="list-style-type: none"> --- Class I --- Class II (II-1, II-2) --- Class III (3B) --- Class II-1 Spring --- THP Boundary --- Existing Permanent Road --- Existing Seasonal Road --- Proposed Temporary Road --- Ex. Seas. Rd. to be Reconst. & Abandoned --- Legacy Road (not for use) </td> <td data-bbox="1188 1228 1468 1399"> <ul style="list-style-type: none"> ▨ Cable Yarding - Clearcutting ▨ Cable Yarding (WLPZ/RMZ) - Selection ▨ Cable Yarding (SMZ/SSS) - Selection □ No Harvesting - WLPZ (RMZ + RSMZ/SSS) - SMZ/SSS ▨ Ground Based Yarding/Cable Option - Clearcutting ★ E3 Unstable Area (size is approx.) </td> </tr> </table>		<ul style="list-style-type: none"> --- Class I --- Class II (II-1, II-2) --- Class III (3B) --- Class II-1 Spring --- THP Boundary --- Existing Permanent Road --- Existing Seasonal Road --- Proposed Temporary Road --- Ex. Seas. Rd. to be Reconst. & Abandoned --- Legacy Road (not for use) 	<ul style="list-style-type: none"> ▨ Cable Yarding - Clearcutting ▨ Cable Yarding (WLPZ/RMZ) - Selection ▨ Cable Yarding (SMZ/SSS) - Selection □ No Harvesting - WLPZ (RMZ + RSMZ/SSS) - SMZ/SSS ▨ Ground Based Yarding/Cable Option - Clearcutting ★ E3 Unstable Area (size is approx.)
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<p>INTERNAL USE ONLY</p> <p>SETTINGS: A: 1222915 B: 1222802 C: 1222801 D: 1222014</p>					



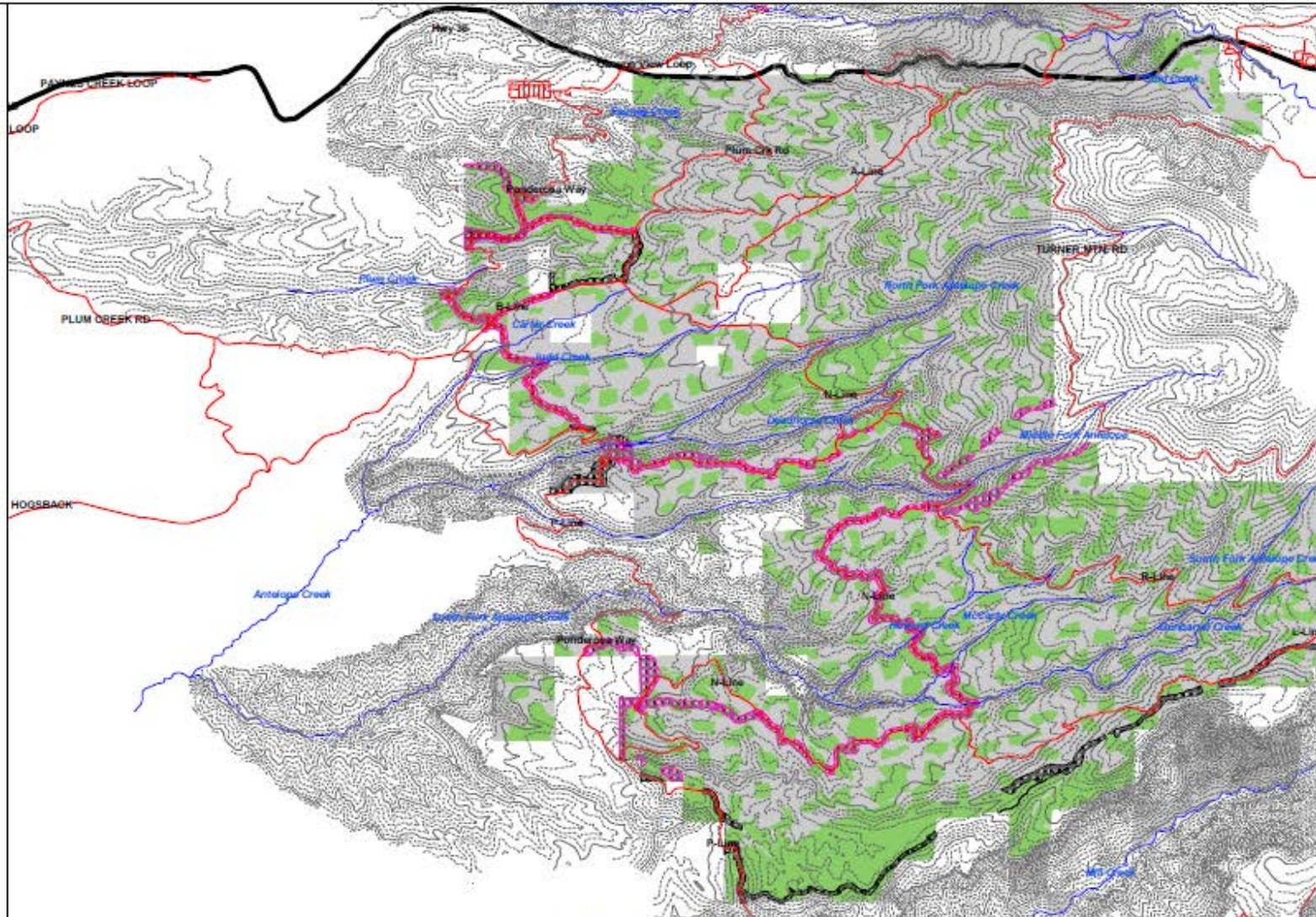
Stream monitoring points		Hemispherical photo points		Stream study reaches		Streams		Treatment Areas	
	Turbidity Threshold Sampling		Riparian		Control		Class I		RMZ treatment area
	Water Temperature		Stream		Treatment		Class II		THP Unit
							Class III		Lower Klamath HPA
									Study Basins

Stream monitoring points for temperature and turbidity, and WLPZ hemispherical photo points

50% overstory canopy after the trees have been felled and yarded out of the RMZ.

Trees to be marked for harvest include alder, maple, bay, tanoak, hazel, and cascara.

TIMBER HARVESTING PLAN No. 2-14-102-TEH THE LINE



- SPI Ownership
- Plantation
- Existing Fuelbreak
- Fuelbreak Proposal
- Highway
- Seasonal Mainline
- Watercourse



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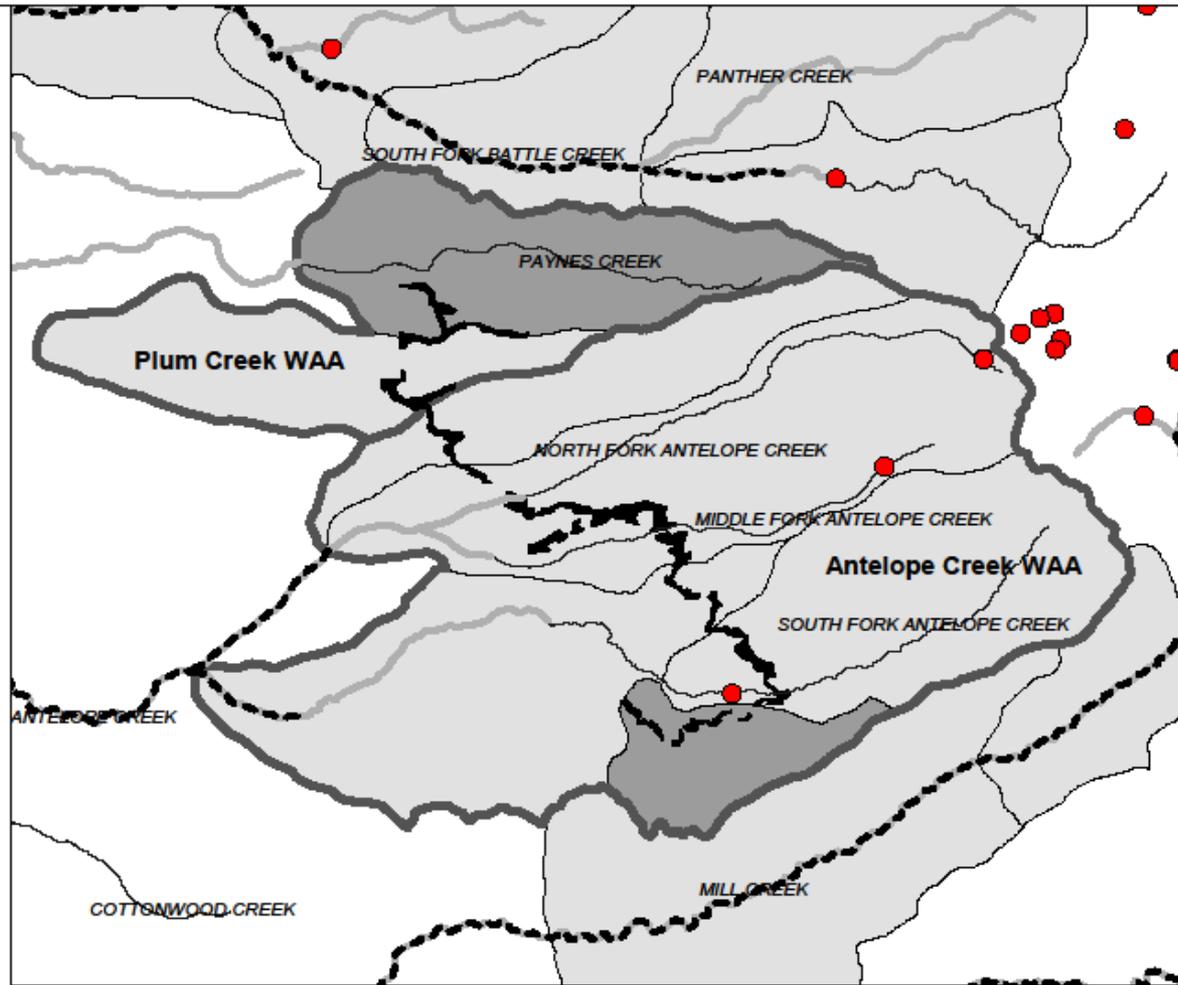
Preliminary Fuelbreak Location
Lessen District West
P Line to N Line

80-ft contour

SPI “The LINE” THP

- Shaded fuelbreak covering 28 miles in Tehama County.
- THP covers 1,192 acres.
- District-wide shaded fuel break crossing 7 Class I watercourses, some with listed anadromous salmonids (ASP or upstream ASP planning watersheds).
- Basal area proposed in WLPZs: 50 square feet.
- PHI for the THP has been held.

-  ASP Watershed
-  Upstream ASP
-  Watershed Assessment
-  Proposed Fuelbreak
-  Stream
-  Steelhead Distribution
-  Chinook Spring Dist
-  Total Barrier



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Steelhead & Chinook Distribution
The LiNe THP

Distribution of the Shaded Fuel Break THP in Tehama County





Photo and
text:
S. Stanish

Completed fuelbreak project example at the northern end of the fuelbreak on Little Giant Mill Road. White is leave-tree mark (Basal area of completed segment of fuelbreak was estimated as varying between 50 and 70 sq.ft./acre).

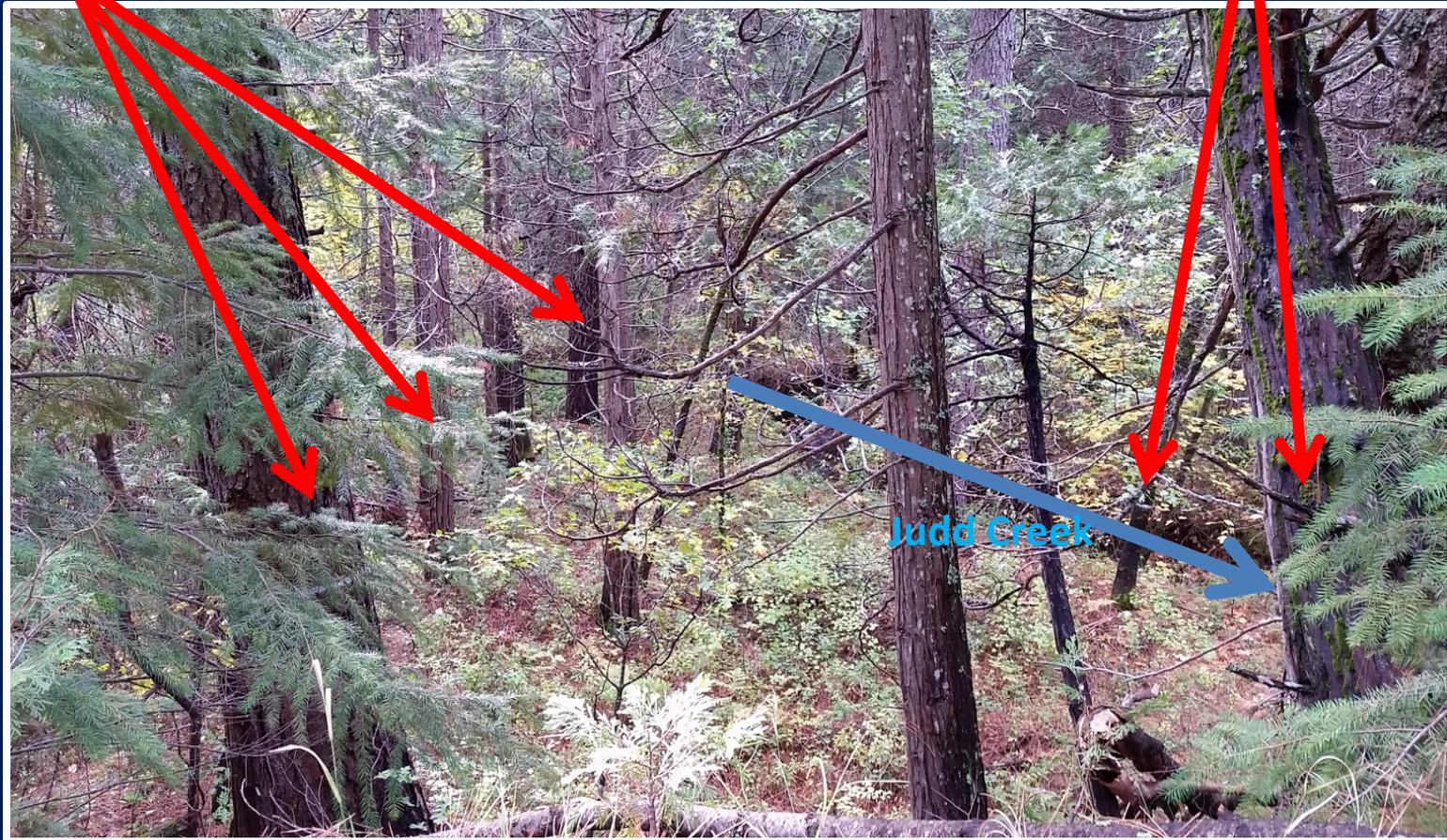


Proposed WLPZ to be treated with fuelbreak. Judd Creek looking upstream. Taken at ford crossing.

Photo and
text:
S. Stanish

Marked Trees

Marked Trees



Looking from road into Judd Creek WLPZ. White is leave-tree mark.

Photo and
text:
S. Stanish