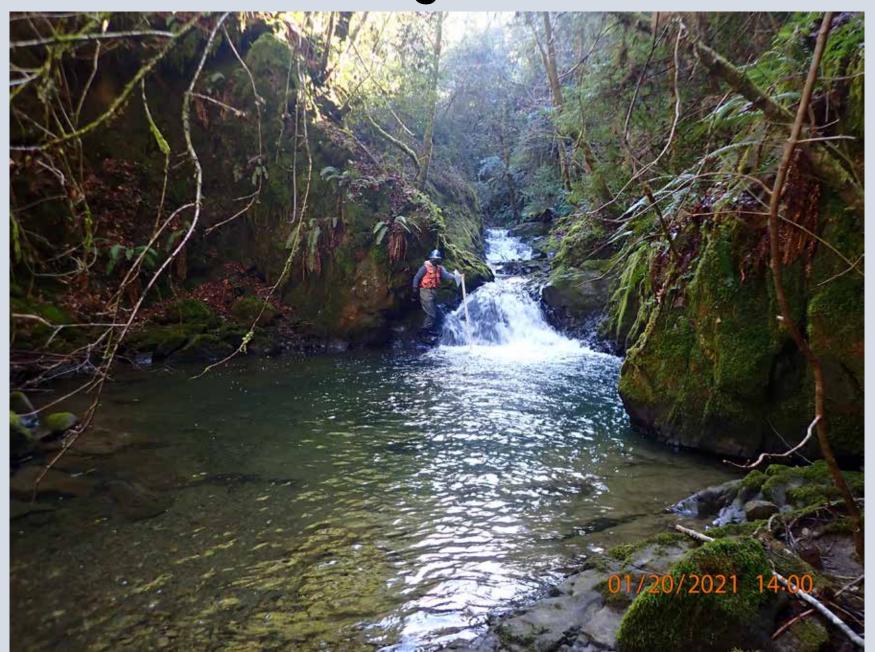
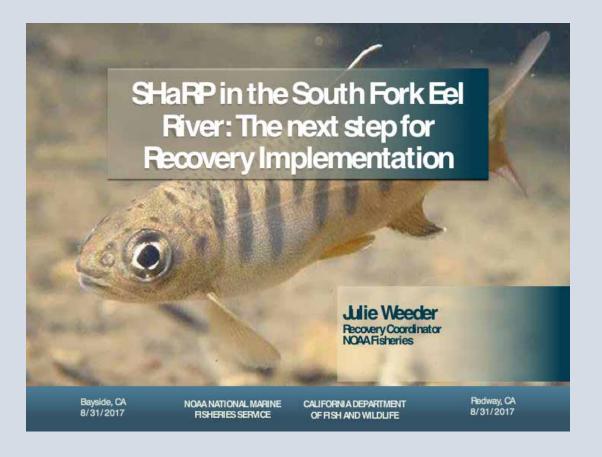


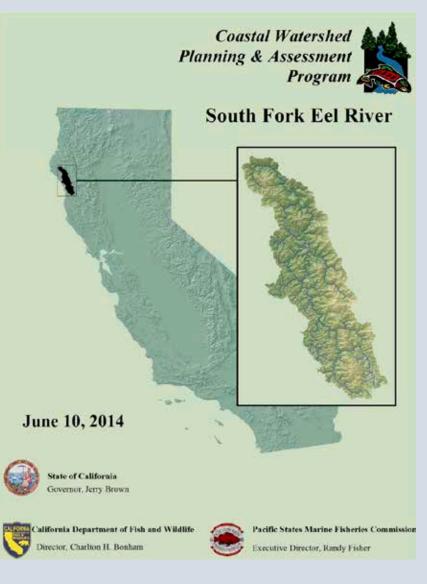
Eel River Watershed Improvement Group Isaac Mikus – Executive Director Isaac@erwig.org

## The Design Process



Determine streams to target for restoration using local knowledge, recovery plans, assessments, and/or landowner requests.

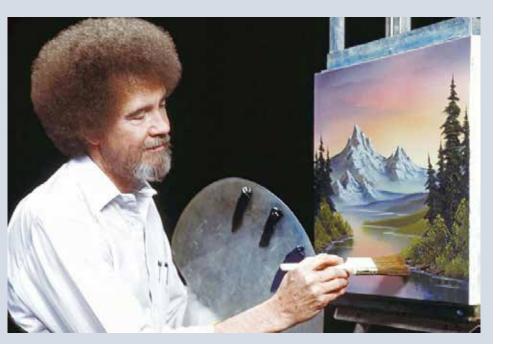




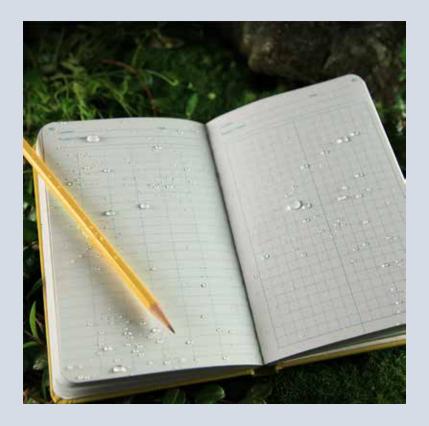
Conduct a wood survey, determine stream needs and target values.

- Number of pieces of wood
- Number of Key Pieces (how are you defining? SONCC/CCC/FRGP)
- Is the stream aggrading or degrading?
- Dominant substrate size
- Pool quality
- Spawning gravel availability
- Gradient

#### Gather crew, tools and artist materials

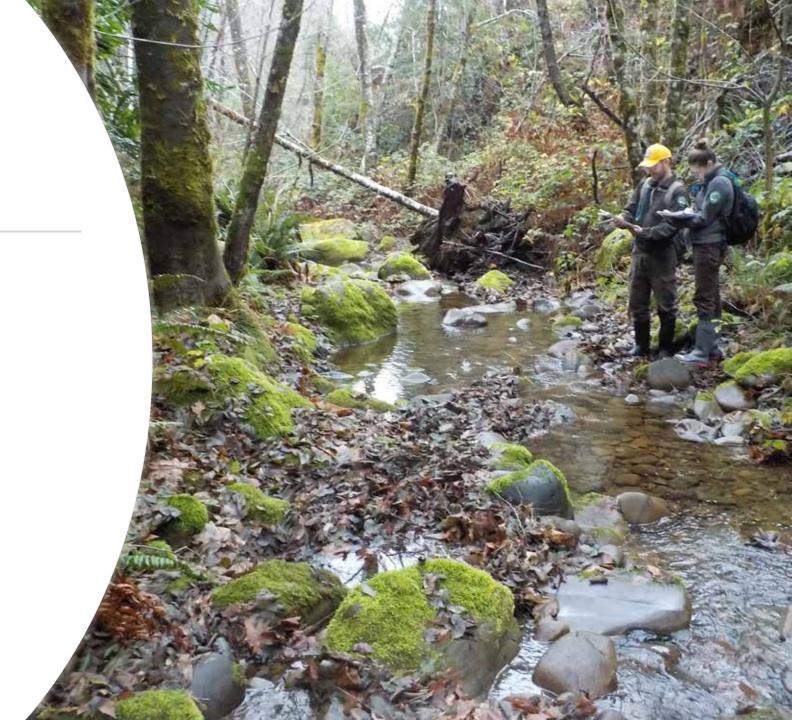


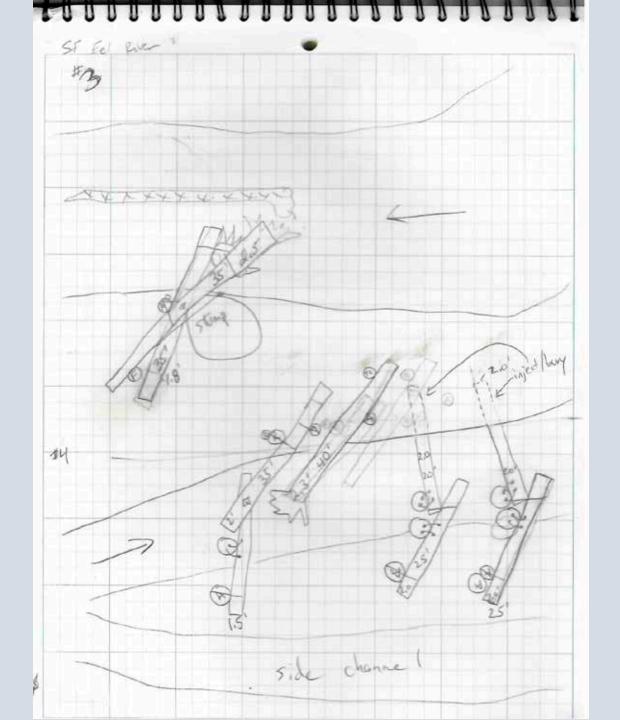


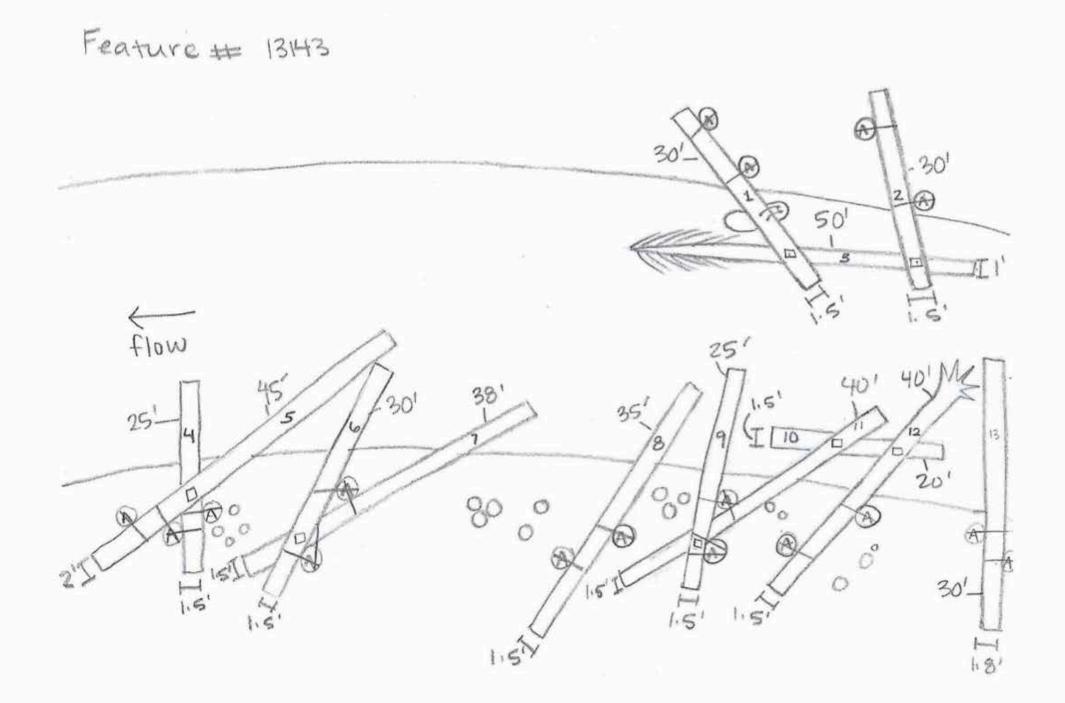


#### Sketch Designs and Collect Measurements

- Feature Number (footage)
- Coordinates
- Existing Habitat Classification
- Dominant substrate
- Dominant cover type and %
- Max residual pool depth
- Bankfull width
- Brief feature description
- Estimated length to be treated
- Estimated length to be disturbed
- Estimated feature square footage
- Objective
- Log lengths
- Photos







Feature: 13143 Coordinates: 40.05495, -123.85178

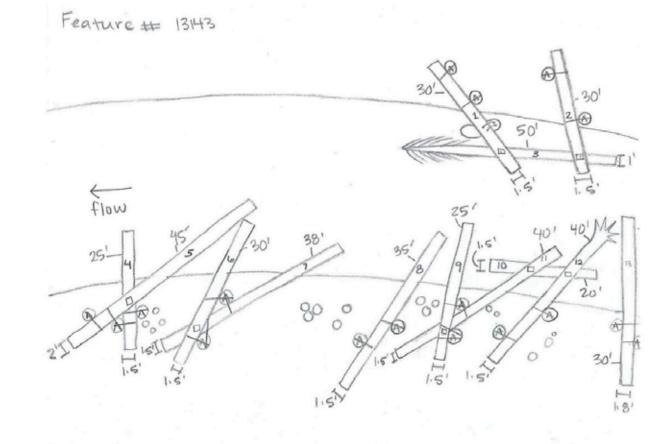
Existing Conditions: Run Bankfull Width: 37 feet Max residual depth: 1.4 feet

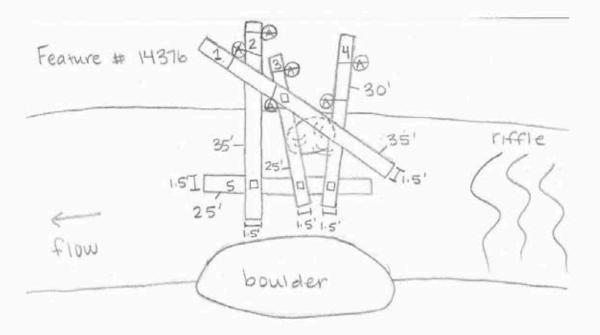
Dominant substrate: Boulder/gravel Dominant cover type: Boulder, <5%

**Project:** Log 3 is underneath and anchored to logs 1 and 2 as a cover log. Log 5 is on top of and anchored to log 4. Log 6 is on top of and anchored to log 7. Log 9 is on top of and anchored to log 11. Log 10 is underneath and anchored to logs 11 and 12 as a cover log. One dead and down Douglas fir will be used for this project. The rest of the logs will be sourced from riparian and upslope redwoods and Douglas firs.

Length Treated: 85 feet Length Disturbed: 30 feet Square Footage: 335 ft<sup>2</sup>

Objective: Increase cover, scour, and velocity refugia.







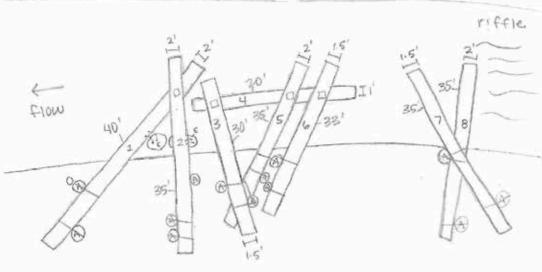
Feature: 11245	Coordinates: 40.05378, -123.84845		
Existing Conditions: Pool/run-riffle	Bankfull W	<b>idth:</b> 40 feet	Max residual depth: 3.1 feet
Dominant substrate: Gravel, small cobble		Dominant cover type: Undercut banks, 5%	

**Project:** Log 2 is on top of and anchored to log 1. Log 4 is a cover log and is underneath and anchored to logs 3, 5, and 6. Log 3 is on top of log 5. Log 7 is on top of log 8. Logs for this feature will be purchased.

Length Treated: 50 feet Length Disturbed: 20 feet Square Footage: 265 ft<sup>2</sup>

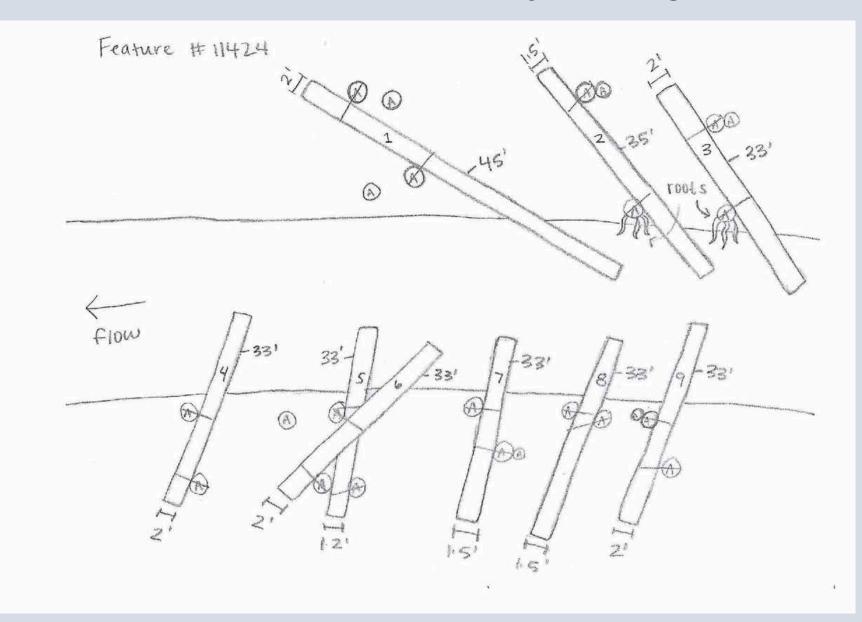
Objective: Increase cover, scour, and velocity refugia.

Feature # 11245

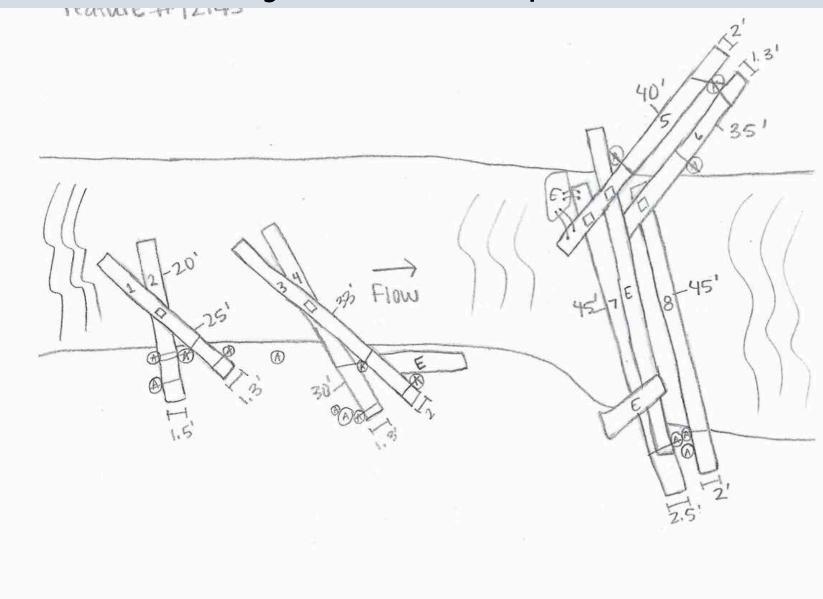




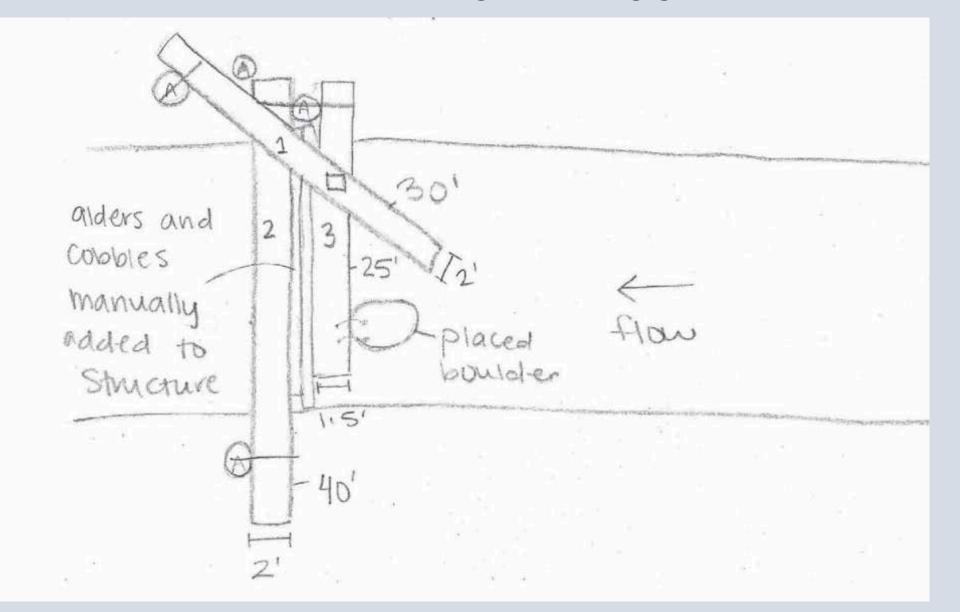
#### Scour/Cover/Velocity Refugia



### Woody Debris Capture



#### Geomorphic Change & Aggradation











# ERWIG Project Budgeting

\$300 - \$500 per log for equipment work, depending on difficulty

\$100 per log anchor for CCC workers

\$\$\$ for CCC log gripping

Equipment and CCC costs really depend on the experience of the work crews, especially when it comes to green CCC crews vs seasoned crews

