

Project Overview

- Kelly Gulch Fish Barrier Project
- Designed and Constructed by Siskiyou County Dept. of Public Works
- Funded by CA Dept. of Fish and Game



Purpose and need

- Increase Salmon Habitat by Removing Barrier
- Design Structure for 100-year Flood
- Project on Five Counties Salmonid Conservation Program Culvert Inventory List

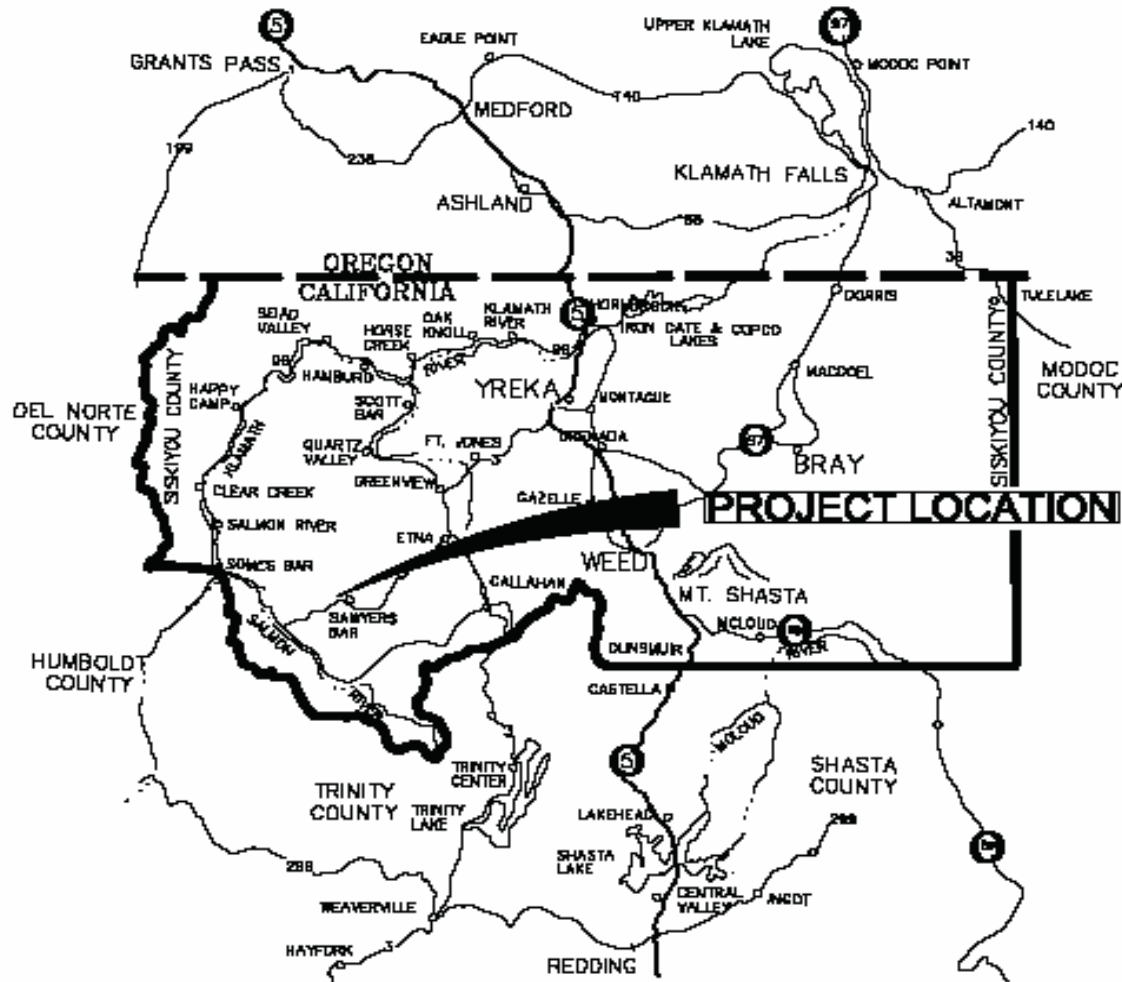


Environmental and Permits

- CEQA- Notice of Exemption
- NEPA- No Fed. Funds or Land
- Fish and Game Permit
- 2004/2005 Fisheries Restoration Grant Program List- No Army Corp./USFWS/NOAA



Project Location

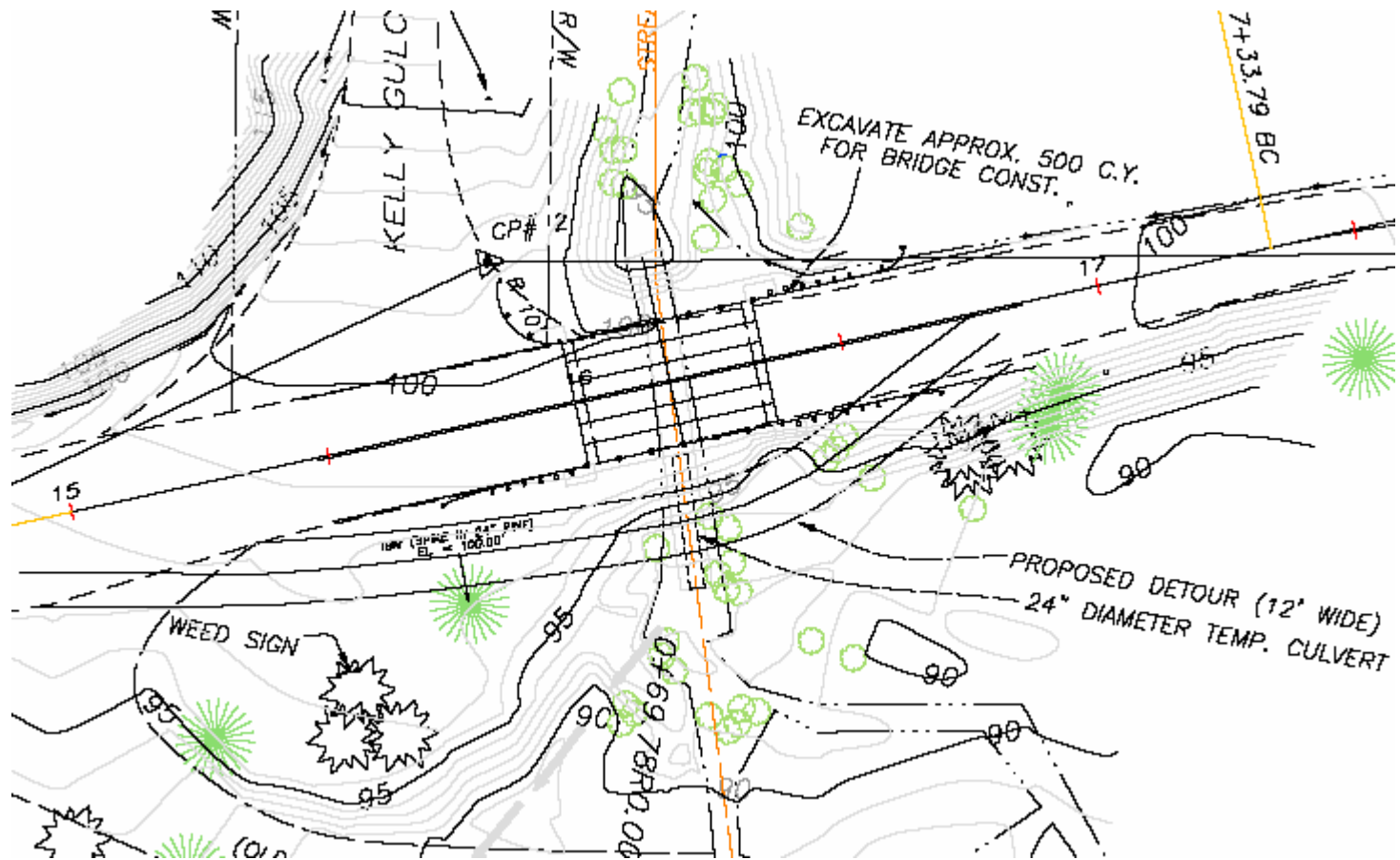


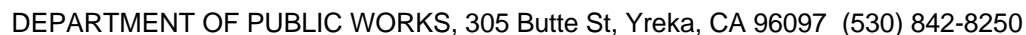
Design Criteria

- Create natural stream bottom for anadromous fish
- Convey 100-year flood
- Cost effective structure
- Conform to existing roadway geometry



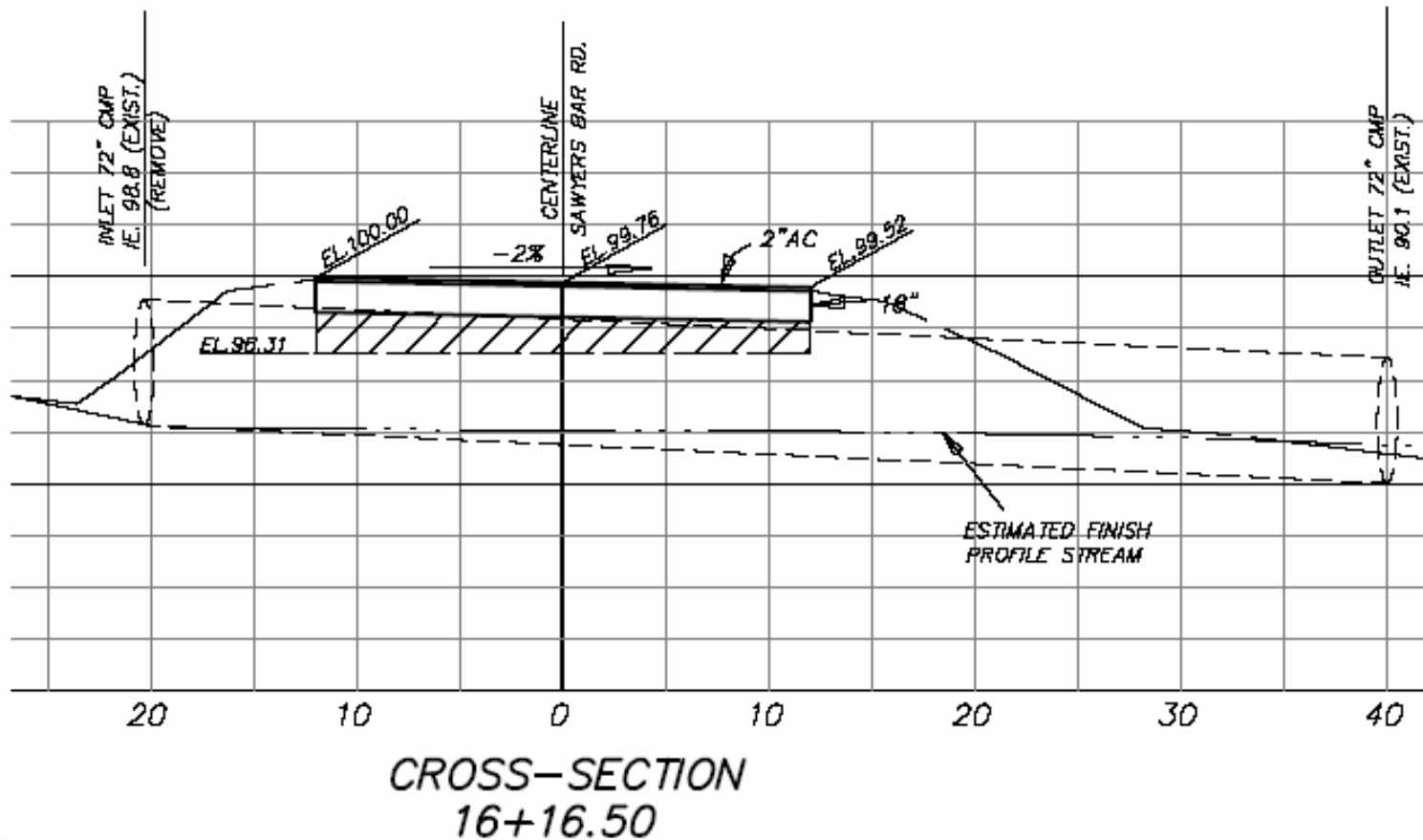
Site Plan





Presented by: Scott Waite

Stream Profile



Kelly Gulch Looking Upstream



Kelly Gulch Looking Downstream



Outlet pool



Sawyers Bar Road and Kelly Gulch Road



Salmon River



Abutments formed and tying steel



Mobilization



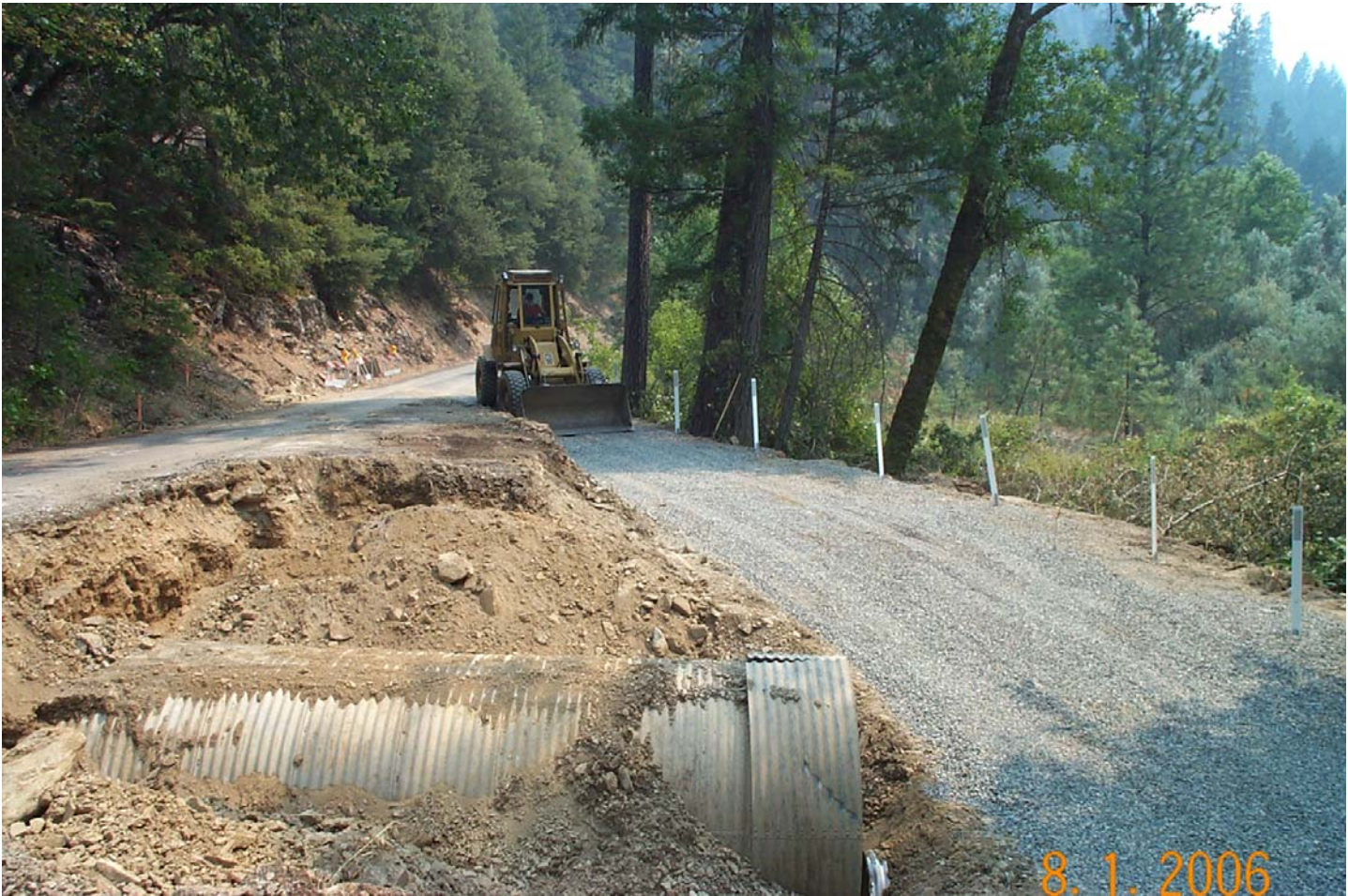
Culvert Removal



Detour Construction



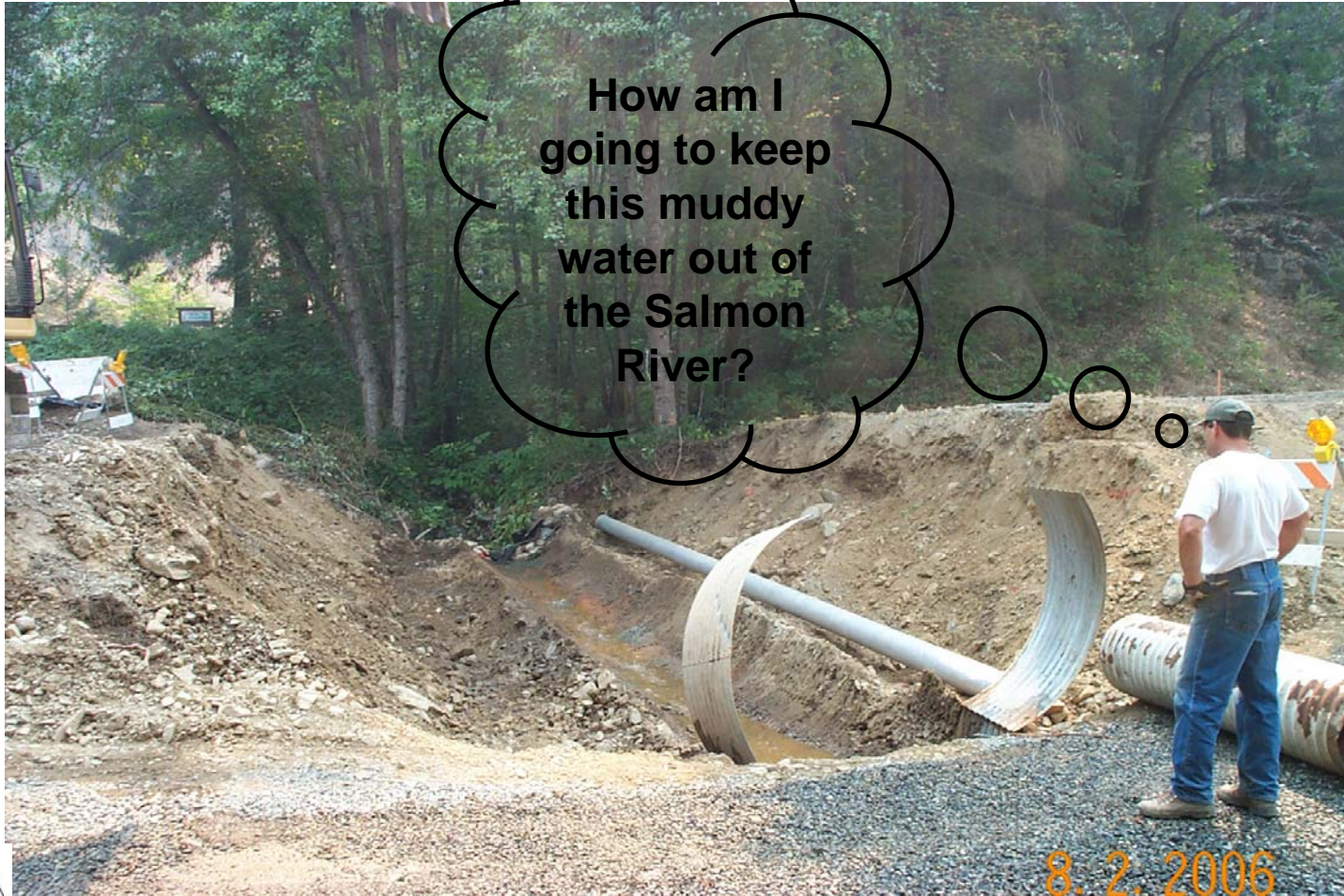
Detour Construction



Detour Complete



Culvert Removal



Salmon River Tripod



Water Bypass



Subgrade Preparation



Placing Base Rock



Deer Crossing



Toe Trench Excavation



Rip Rap Placed and Stream Restored



Abutment Pads Complete



Setting Abutment



Abutment In Place



Abutments ready for decks



Setting Deck



Deck Assembly



Bearing Pads and Styrofoam



Drilling decks to set pins



Abutment and Deck



Temporary Guard Rail



Toe trench for Rip Rap



Placing Rip Rap on Fabric



Rip Rap Placement



Willow Planting Downstream



Willow Planting and Rip Rap



Stream Restoration Complete



Guard Rail and Phone Line



Gabion Basket Installation



Final Paving



Conform to roadway



Project Schedule

- Abutment Construction- 3 Days offsite
- Mobilization-1 Day
- Detour Construction- 1 Day
- Culvert Removal- 1 Day
- Abutment Prep/Place Rip Rap- 2 Days
- Place Abutment and Decks- 2 Days
- Place Temp Guard Rail- 1 Day
- Willow Planting and Rip Rap- 2 days
- Place Guard Rail and Paving- 4 Days
- Total Time Working Onsite---14 Days



Project Budget/Cost

- Construction Budget- \$163,000
- Construction Costs- \$130,000
- \$33,000 under budget cost-
- \$130,000 per mile of anadromous fish habitat

- 35% Labor
- 60% Materials
- 5% Equipment

- Engineering Cost \$12,000
- Approx. 10% of Construction

