

Southern California Steelhead: Challenges and Opportunities

Kurt Zimmerman, Southern California Regional Manager, California Trout Fish Passage Forum (Sept. 4, 2013; Arcata, CA)

- 100 years ago, Southern California was known for its steelhead runs.
- Steelhead fishing in certain watersheds was enormously popular with anglers of all ages, genders, ethnicities and socio-economic classes.
 - During fishing season, the Los Angeles Times ran articles about the great sizes and large quantities of steelhead caught in the Santa Ynez River.



Southern California Steelhead: Challenges and Opportunities

- Annual steelhead runs in Southern California have declined precipitously from 32,000-46,000 returning adults to less than 500.
 - Decline is primarily the result of human activities including:
 - Water storage and diversion
 - Flood control
 - Forestry practices
 - Agriculture
 - Mining
 - Introduction of exotics/invasives
 - Population Growth
 - Urban Development

Southern California Steelhead: Challenges and Opportunities

- Population Growth and Urban Development represent ongoing threats to the species' viability.
 - The 10 counties comprising what is traditionally referred to as Southern California (Los Angeles, San Diego, Orange, Riverside, San Bernardino, Ventura, Santa Barbara, Kern, San Luis Obispo and Imperial) contain a population of 22.5 million, or about 60% of the State's entire population.
 - Birth rates are dropping and immigration is down, but Southern California's population will grow to 31 million by 2060.
 - California law and policy encourage urban development in Southern California on a mammoth scale.

Southern California Steelhead: Challenges and Opportunities

- Other ongoing threat to the species' viability
 - Climate change:
 - Some climate models estimate 10% reduction in precipitation statewide by 2100.
 - Increased minimum air temperatures and warmer spring and summer temperatures leading to increases in freshwater and ocean temperatures.
 - Reduction in precipitation and temperature increases could negatively impact steelhead.

Southern California Steelhead: Challenges and Opportunities

- Other ongoing threat to the species' viability
 - Lack of awareness:
 - Most Southern Californians have never heard of steelhead and do not even fish.
 - In Southern California, private-sector environmental consultants frequently fail to identify, or evaluate the negative impacts of proposed projects on steelhead in the course of environmental review.
 - No mention, or inadequate discussion of steelhead in a MND, FONSI, EA, EIR/EIS, IRWMP etc.

Southern California Steelhead: Challenges and Opportunities

- Reasons to be optimistic about the species' long-term prospects:
 - Listing in 1997, under the federal Endangered Species Act.
 - Critical habitat designation.
 - Expanded boundaries for the DPS – Santa Maria River in Northern Santa Barbara County to the California-Mexico border.

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- Reasons to be optimistic (cont.)
 - The region is crisscrossed with watersheds with historic steelhead habitat.
 - Removal or modification of dams, water diversions and other barriers, among other things, still necessary for the restoration of fish passage.
 - Release in 2012 of NMFS' Southern California Steelhead Recovery Plan, which facilitates recovery by:
 - Identifying threats
 - Prioritizing restoration opportunities
 - Suggesting potential collaborators at locations throughout multiple watersheds

Southern California Steelhead: Challenges and Opportunities

- Reasons to be optimistic (cont.)
 - Significant commitment (financial and time) of resource agencies and other agencies to steelhead recovery including NMFS, USFWS, CDFW, USFS, USACOE, CNRA, DWR, CalTrans, Coastal Conservancy, Five Counties Salmonid Conservation Program, Pacific States Marine Fisheries Commission.
 - Significant commitment (financial and time) of other stakeholders – non-profits, private consultants, academics, appointed and elected officials, volunteers etc. to steelhead recovery.

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- Funding from the CDFW's FRGP and support from other resource agencies has allowed CalTrout to move forward with the creation of two, steelhead restoration Coalitions in Southern California in 2012.
 - The South Coast Steelhead Coalition
 - The Santa Clara River Steelhead Coalition

Southern California Steelhead: Challenges and Opportunities

- The South Coast Steelhead Coalition is focused on steelhead restoration and public outreach to publicize that work and underscore the importance of watershed health in Orange and San Diego Counties.
 - San Juan/Trabuco Creek, San Mateo Creek, the Santa Margarita River and the San Luis Rey River
- The Coalition's Coordinator is CalTrout's Roxanne (Roxy) Carter, a former Manager with the San Diego Audubon Society.
- Coalition consists of more than a dozen stakeholders including:
 - Trout Unlimited (our Co-Chair,), Golden State Flycasters, San Diego Coastkeeper, and the Chaparral Lands Conservancy

Southern California Steelhead: Challenges and Opportunities

- Santa Margarita River north of Temecula



Southern California Steelhead: Challenges and Opportunities

- In 2013, South Coast Steelhead Coalition identified restoration opportunities in the watersheds and is seeking additional funding through CDFW's FRGP and other sources for their implementation:
 - Removal of an Arizona crossing on Los Alamos Creek in the Cleveland National Forest (CalTrout).
 - Removal of up to 81 check dams to restore fish passage in the San Juan/Trabuco Creek watershed (CalTrout).
 - Removal of invasive fish species in the Santa Margarita River (CalTrout).
 - A study to identify sources of the invasive fish species and permanently eradicate them (CalTrout).
 - A study to evaluate steelhead habitat, fish passage barriers, water quality and quantity in San Juan/Trabuco Creek (Trout Unlimited).

Southern California Steelhead: Challenges and Opportunities

- The Santa Clara River Steelhead Coalition is focused on steelhead restoration and public outreach to publicize that work and underscore the importance of watershed health in the Santa Clara River Watershed (approx. 1600 sq. mi.) in Ventura and Los Angeles Counties.
 - Tributaries include Santa Paula Creek, Sespe Creek and Piru Creek.
- The Coalition's Coordinator is CalTrout's Candice Meneghin, an ecologist originally from South Africa.
- Coalition consists of stakeholders including:
 - The Nature Conservancy, Friends of the Santa Clara River, UCSB's Riparian Invasion Research Laboratory, Keep the Sespe Wild, Ventura Coastkeeper/WishToyo Foundation (Native American Foundation), Coastal Conservancy and Stoecker Ecological.

Southern California Steelhead: Challenges and Opportunities

- Santa Clara River



Southern California Steelhead: Challenges and Opportunities

- In 2013, Santa Clara River Coalition identified restoration opportunities in the watersheds and is seeking funding through CDFW's FRGP and other sources for their implementation:
 - Elevation/stabilization of the creek bed below Harvey Diversion on the Santa Paula Creek with "H Beams." (CalTrout)
 - Watershed-wide monitoring to address upstream migration, fry and juvenile rearing, smolt outmigration, overall steelhead abundance and steelhead habitat suitability. (CalTrout)
 - Smaller-scale Santa Clara River estuary restoration , (i.e., moving camp sites). (Ventura Coastkeeper)

Southern California Steelhead: Challenges and Opportunities

- Other Fish Passage Restoration Opportunities:
 - Vern Freeman Diversion
 - Santa Felicia Dam
 - Rindge Dam
 - Matilija Dam

Southern California Steelhead: Challenges and Opportunities

- Vern Freeman Diversion is located on the main-stem of the Santa Clara River, operated by United Water Conservation District.
 - CalTrout litigation against United Water led to creation of Fish Passage Panel
 - Fish Passage Panel recommended a hardened fish ramp
 - United Water proceeding with the design of that ramp



Southern California Steelhead: Challenges and Opportunities

- Rindge Dam is located on Malibu Creek in Malibu Creek State Park
- Coalition of stakeholders focused on its removal
- EIR/EIS and Feasibility Study being prepared by USACOE



Southern California Steelhead: Challenges and Opportunities

- Santa Felicia Dam is located on Piru Creek, a tributary of the Santa Clara River, operated by United Water Conservation District.
 - United Water convened a Fish Passage Panel to satisfy FERC permit requirements (NMFS BO requirements)
 - Fish Passage Panel is preparing a fish passage feasibility report for release in April 2015
 - Final decision re fish passage due in June 2015



Southern California Steelhead: Challenges and Opportunities

- Matilija Dam is located on tributary of the Ventura River, operated by Ventura County Watershed Protection District.
 - Coalition of stakeholders focused on its removal
 - In Spring 2013, request for qualifications released so that Coalition could evaluate potential consultants' ability to select feasible dam removal methods, model sediment transport and sediment mitigation

