

Panel Session #1: State of Anderson Valley

Our Watershed: Valley Hydrology, Salmon, Biodiversity

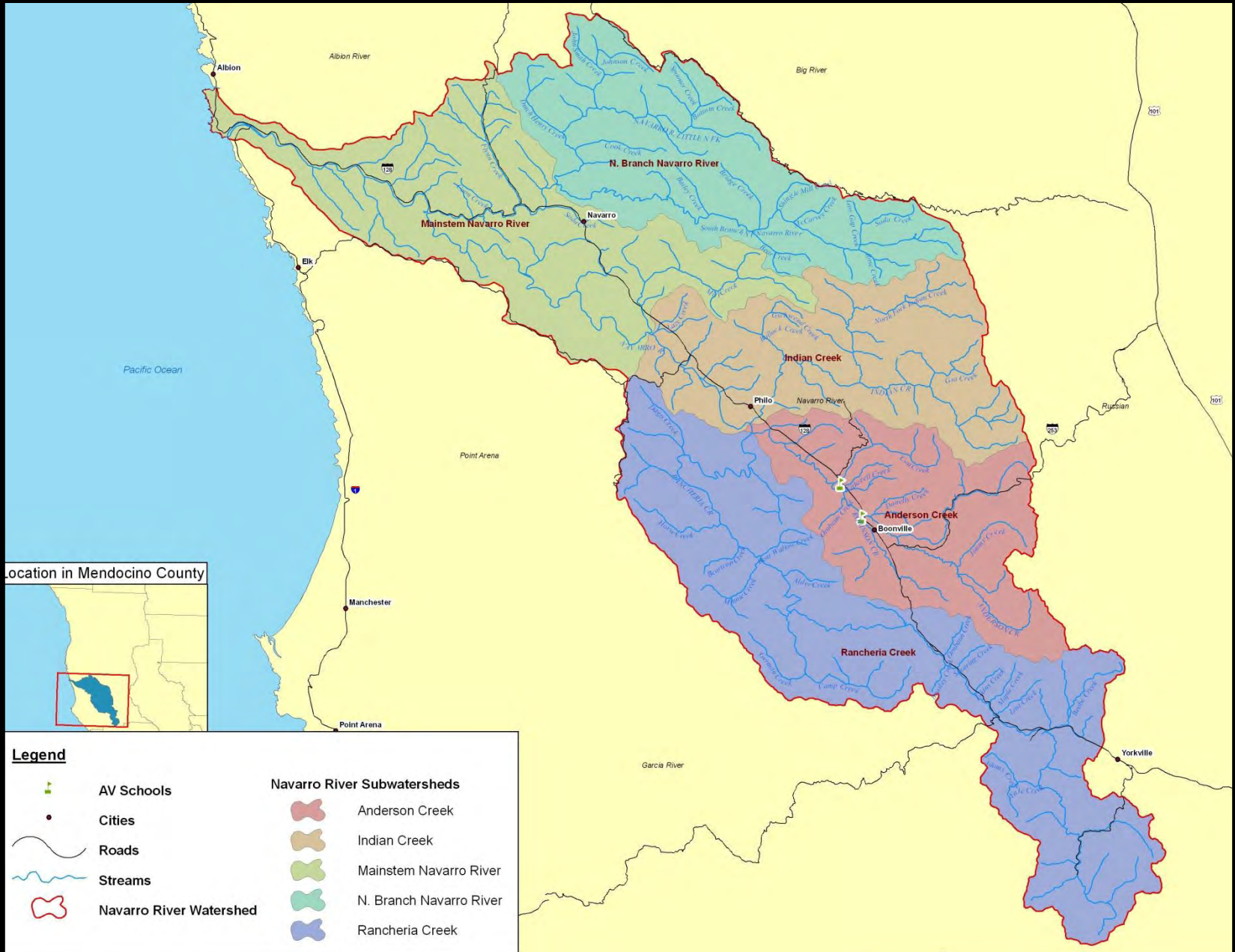
- **Chair and Presenter: Linda MacElwee**
 - **Mike Jones, Ph.D, UCCE Forest advisor**
 - **Adina Merenlender, Ph.D, Professor of Cooperative Extension in Conservation Science at U.C. Berkeley**
 - **Monty Schmitt, Senior Project Director with The Nature Conservancy**
 - **Christopher Woltemade, Ph.D, Prunuske Chatham, Inc.**

Entering

Navarro River Watershed

Cabernet
Sauvignon

Navarro River Watershed Sub-basin Map



Legend

- | | | | |
|---|-------------------------|---|-------------------------|
|  | AV Schools |  | Anderson Creek |
|  | Cities |  | Indian Creek |
|  | Roads |  | Mainstem Navarro River |
|  | Streams |  | N. Branch Navarro River |
|  | Navarro River Watershed |  | Rancheria Creek |

From the top of the watershed:







To the mouth of the river.....



We live in a beautiful and unique place.....





Restoration and Recovery Plans for the Navarro River Watershed

- Navarro Watershed Restoration Plan, Entrix 1998
- CCC Coho Recovery Plan, NOAA Fisheries, September 2012
- Multispecies Recovery Plan: California Coastal Chinook Salmon ESU, Northern California Steelhead DPS and Central California Coast Steelhead DPS, NOAA Fisheries, October 2016
- Wildlife Conservation Board Grant Drought/Climate Resiliency Planning, Navarro Streamflow Partnership 2017

Regulatory framework at work in the Navarro Watershed

- Navarro River Watershed listed for Total Maximum Daily Load (TMDL) for Sediment and Temperature, 2000
- NMFS lists Steelhead as threatened species(2006) and Coho salmon as endangered species (2005) under Endangered Species Act
- North Coast Regional Water Quality Control Board (NCRWQCB) Sediment Work Plan, 2008
- Regional Board Temperature Action Plan to address temperature TMDL in the Navarro, Mattole and Eel River Watersheds, 2014
- SB AB 2121- Policy for Maintaining Instream flows, 2014
- State Groundwater Management Act 2014
- Regional Board Irrigated Ag discharge permit for the North Coast (under development expected Fall 2023)

Roads are a major source of sediment in the Navarro watershed, modern road techniques are designed to make roads hydrologically invisible to the landscape



From the Meadows of Coastal Grassland Prairie,



And the rich habitat of oak woodlands...



Down to the deep end of the watershed...



Where Coho Salmon find clear, cool water



Steelhead use the entire watershed for spawning and summer rearing



Residual pools are especially important from August-October for the Summer rearing time of the Salmonid life cycle



The Navarro is known as a very “flashy” river system...
with low flows at the gauge getting down to <1 CFS for weeks/months
at a time, June/July thru early October—compounded by the cumulative impacts
of 9+ years of consecutive drought conditions



During high flows the Navarro can get up to nearly 60,000 cfs
Photo: January 2006



The Navarro Gauge has been recording data since
1950. Access storm event info & flow data
for the Navarro River

<http://waterdata.usgs.gov/nwis/program>

Farming in a variable climate with climate change, it's important to build for drought as well as flood resiliency.

Photo: Anderson Creek, El Nino 1996



















Thank you for all your efforts
toward conserving and
restoring the Navarro River
watershed.



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