

# Russian River Estuary

## Monitoring Studies



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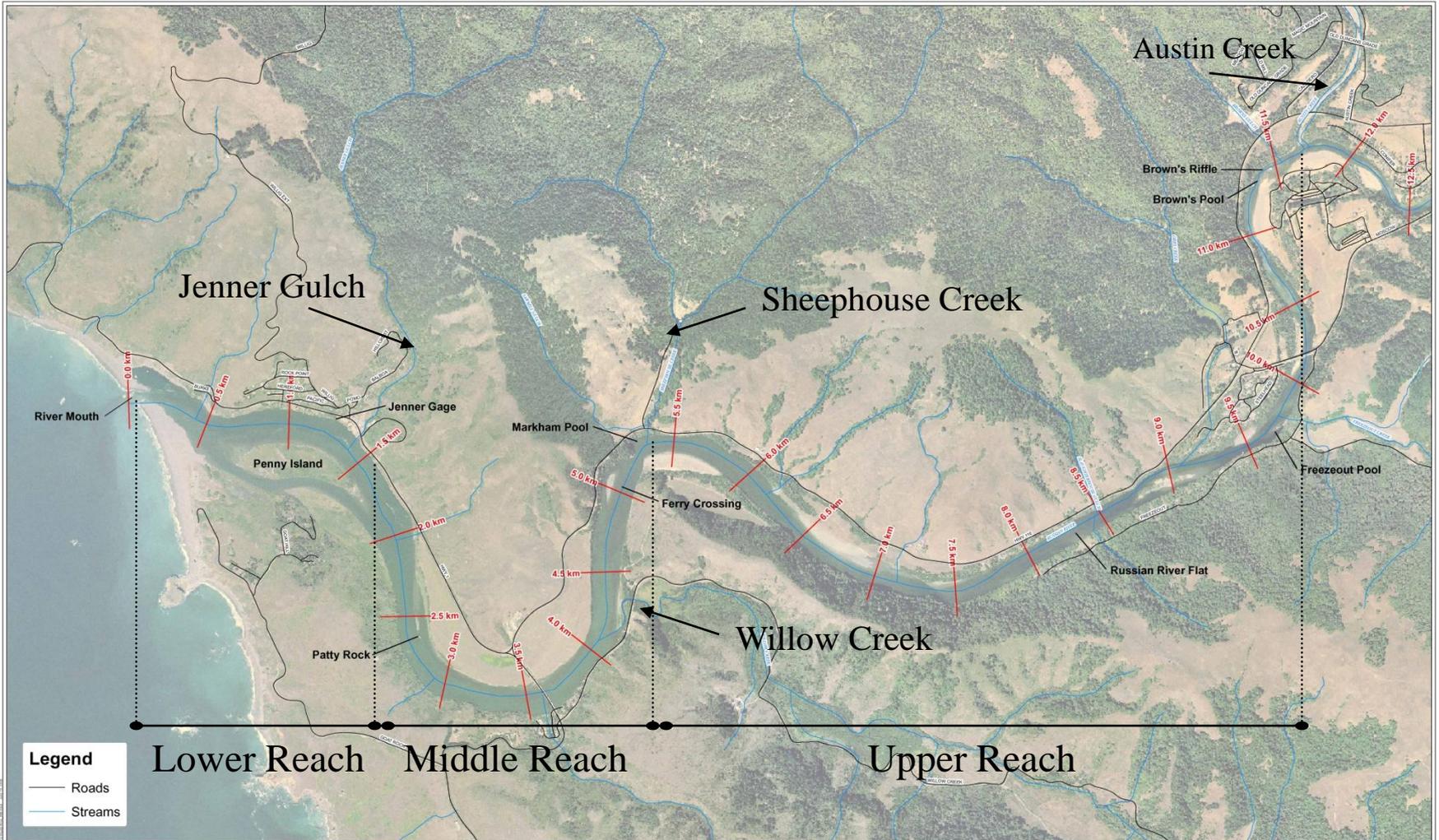


# Studies

- Biological
  - Pinnipeds
  - Fisheries seining
  - Macro-invertebrates
  - Fyke
  - Invertebrate prey
- Water Quality
- Bathymetry



# Russian River Estuary



**Sandbar Breaching Monitoring**  
Russian River Estuary Study Area  
Sonoma County, CA

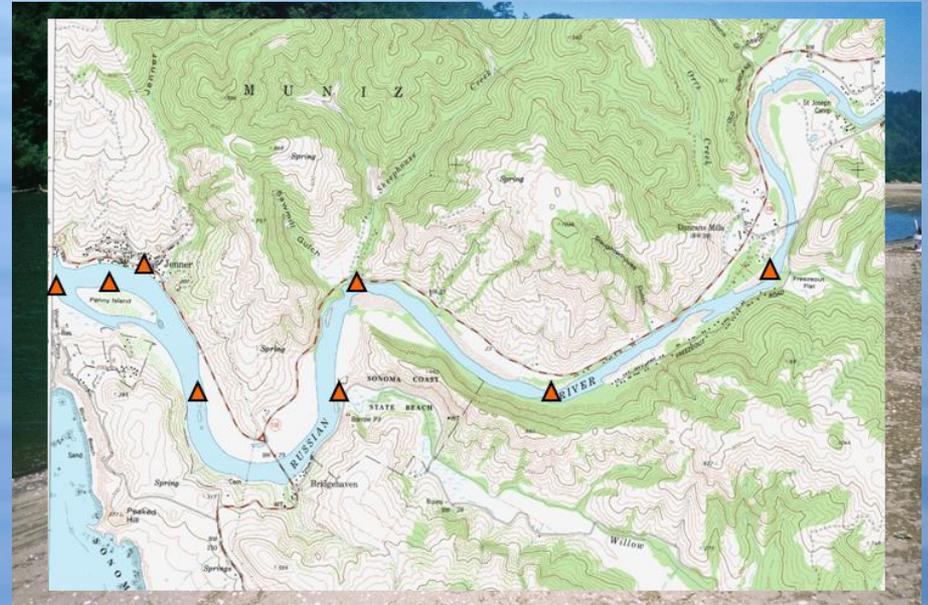
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0 800 1,600 Feet

# Seining

- Began in 2004
- Distribution & abundance
  - Common species
  - Listed steelhead, Chinook salmon, coho salmon
- 8 sites every 3 weeks, May to September



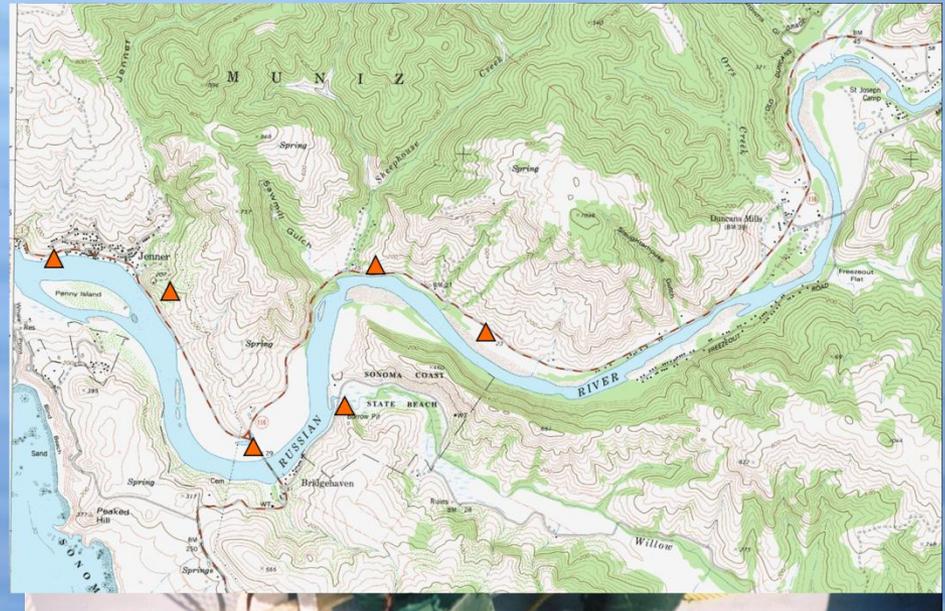
# Seining

- Capture 5,000-22,000 fish annually
- Over 40 freshwater, anadromous, marine, estuarine species



# Macro-invertebrate Surveys

- Began 2004
- Species
  - Dungeness crab
  - European green crab
  - Hairy rock crab
  - Yellow shore crab
  - Bay shrimp
- 6 trap stations
- Monthly, May – Sept



# Fyke

- Began 2009
- Upper reach of Estuary
- YOY steelhead
- 23 species captured
  - Including steelhead, chinook and coho salmon



# Invertebrate Prey

- Evaluate invertebrate response to changes in Estuary
- Zooplankton, epibenthic, benthic inverts food for salmonids
- Univ of Washington Wetlands Ecosystem Team
- Distribution, composition, abundance of salmonid prey items



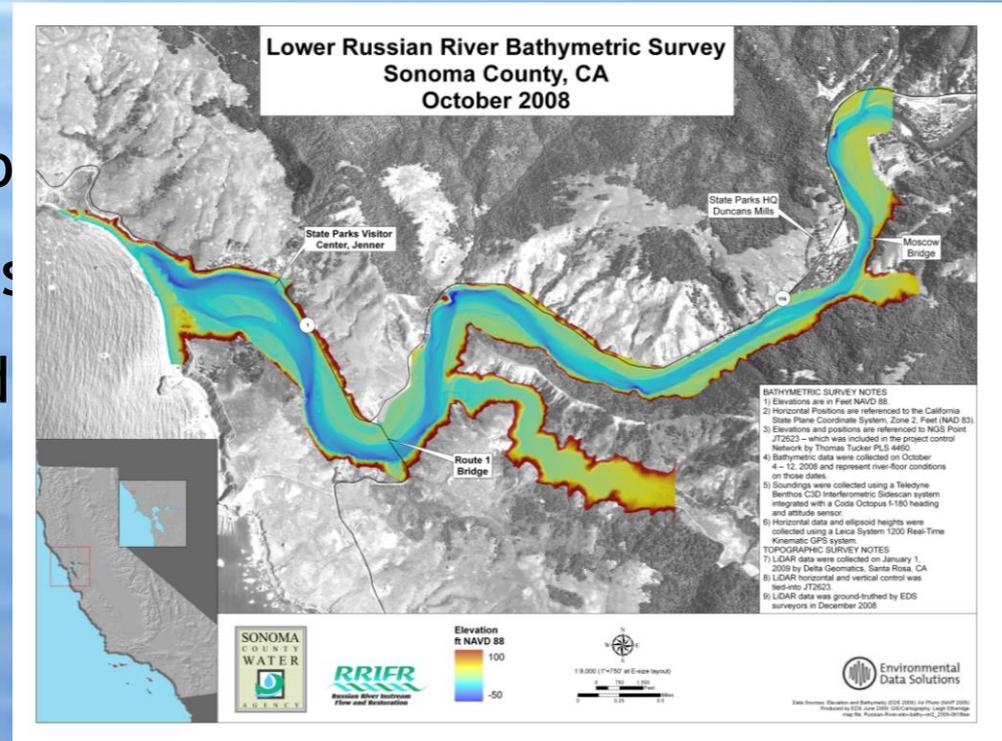
# Water Quality

- 6<sup>th</sup> year of monitoring
- 6 locations
- May – Dec  
(or winter rains)
- Multi-sonde arrays
- Continuously record hourly data
- Temp, dissolved oxygen, pH, conductance, salinity



# Bathymetry

- Contracted with EDS
- Habitat and inundation
- Map of Estuary floor & top
- Below surface - side scan s
- Above surface - LIDAR and
- Sediment sampling





# To learn more...

[www.sonomacountywater.org](http://www.sonomacountywater.org)



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