CENTRAL COAST WATER CONSERVANCY (CCWC)

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Central Coast Water Conservancy and Central Coast Salmon Enhancement

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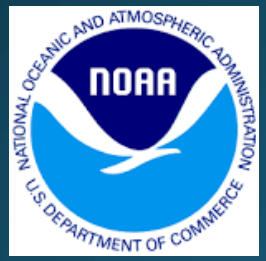
Central Coast Water Conservancy

- ✓Initiated to galvanize, prioritize, and coordinate central coast efforts to enhance stream flows in a sustainable, voluntary and measurable manner

- ✓An informal umbrella group for agencies and organizations active in voluntary land and water conservation

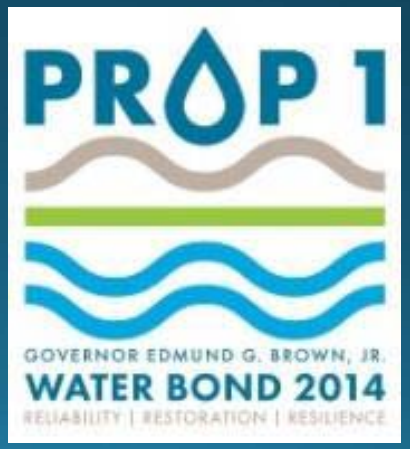
✓ More Participants Welcome



Coastal San Luis

Today's Presentation:

- ✓Work funded by the State of California Wildlife Conservation Board Streamflow Enhancement Program (Prop 1, Chapter 6—Protecting Rivers, Lakes, Streams, Coastal Waters and Watersheds)



Components of WCB Funded Work:

- ✓ Low flow stream monitoring - SLO County (~60 sites)
- ✓ High & low flow stream monitoring - SLO County (12 sites)
- ✓ Evaluation of existing streamflow augmentation project (Cal Poly)
- ✓ Collect pre-project streamflow data for proposed City of SLO rainwater capture and peak flow storage project
- ✓ Regional planning of instream flow augmentation in Santa Barbara and Ventura Counties

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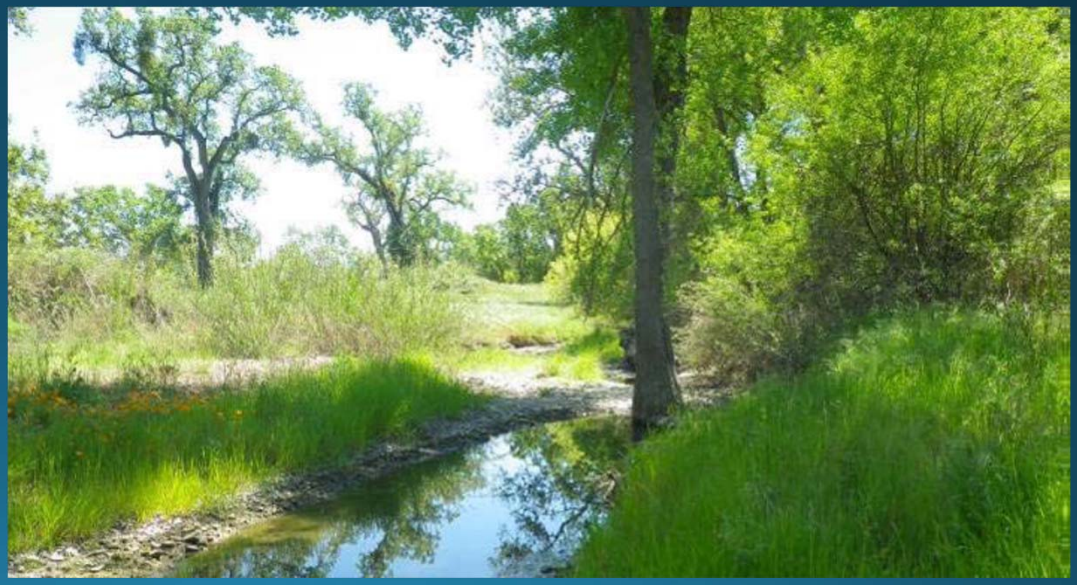
1. Low Flow Stream Monitoring Across the County

SLO County Regional Instream Flow Assessment

Stillwater Sciences, 2014 (DWR IRWMP)

- ✓Identified minimum Environmental Water Demand (EWD) for the two most flow-sensitive periods: spring and summer
- ✓ EWD is defined as "the amount of water needed in an aquatic ecosystem, or released into it, to sustain aquatic habitat and ecosystem process"



SLO County Regional Instream Flow Assessment

Stillwater Sciences, 2014 (DWR IRWMP)

- ✓Analysis was limited to portions of each watershed determined to have a high potential for historically supporting steelhead trout (i.e. high potential for historically perennial reaches) (NOAA, 1996)
- ✓Minimum EWD in spring ~ 0.5 to 4 cfs
- ✓Minimum EWD in summer ~ 0.25 to 1 cfs

Measuring Low Flows

- ✓Spot measurements for the most flow-sensitive seasons: spring and summer (2015-2018)
- ✓~60 sites in the San Luis Obispo County
- ✓Added all accessible creek mouths ~ 20 sites
- ✓Quality control

Preliminary Results

Spring and Summer 2015

~ 1/2 of all sites were flowing

~ 10 % of all sites met minimum EWD*

Spring and Summer 2016

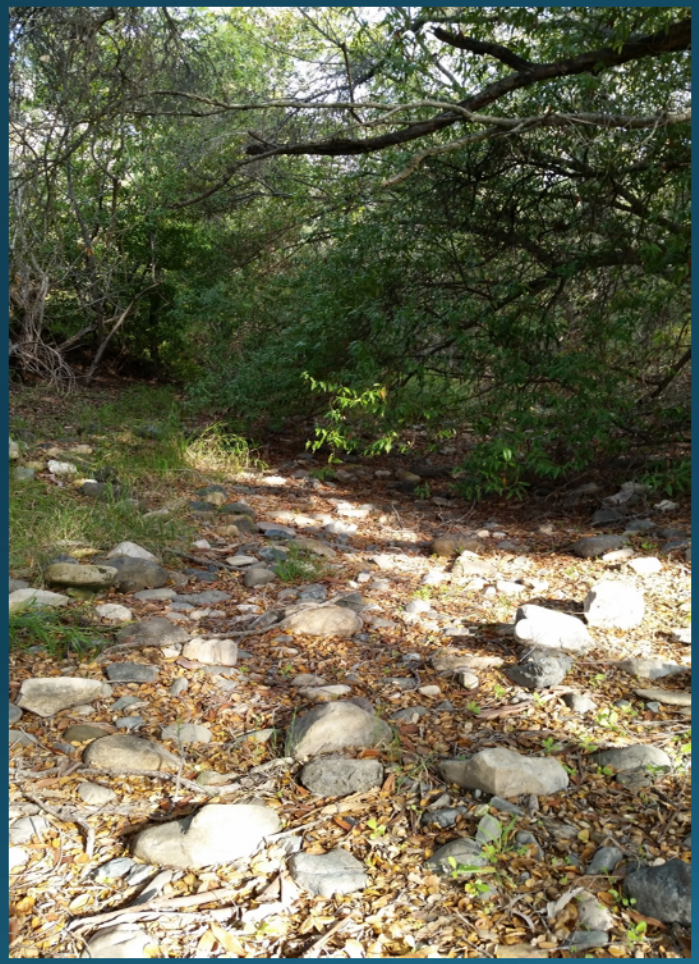
~ ½ of all sites were flowing

~ in general sites that were flowing had more H20 than 2015

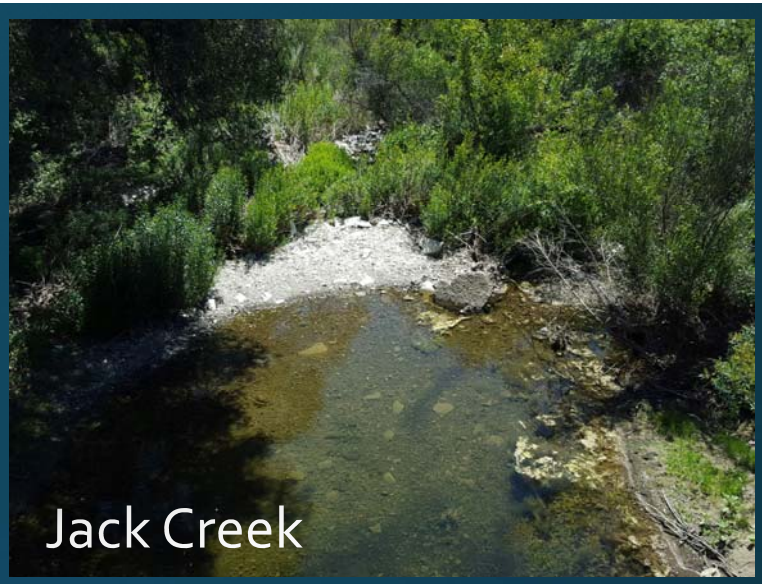
~20 % of all sites met minimum EWD*

*as defined in Stillwater, 2014

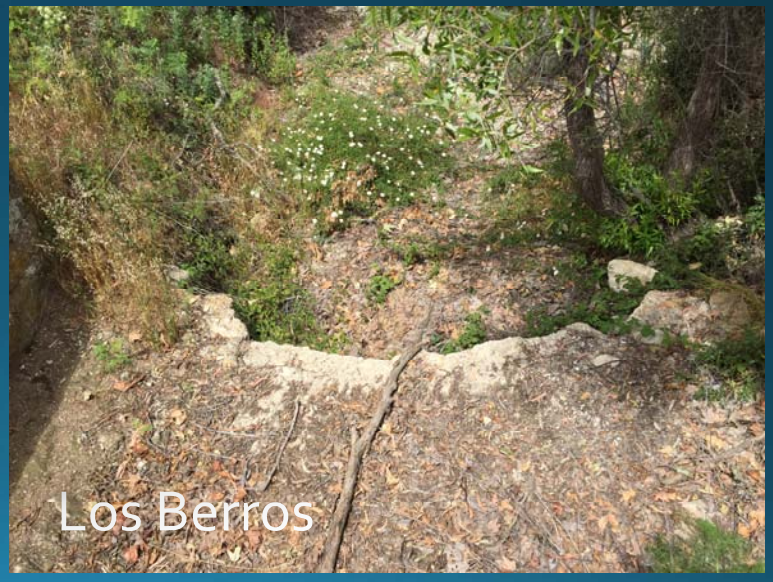
Dry Sites (2016)



Upper Pismo

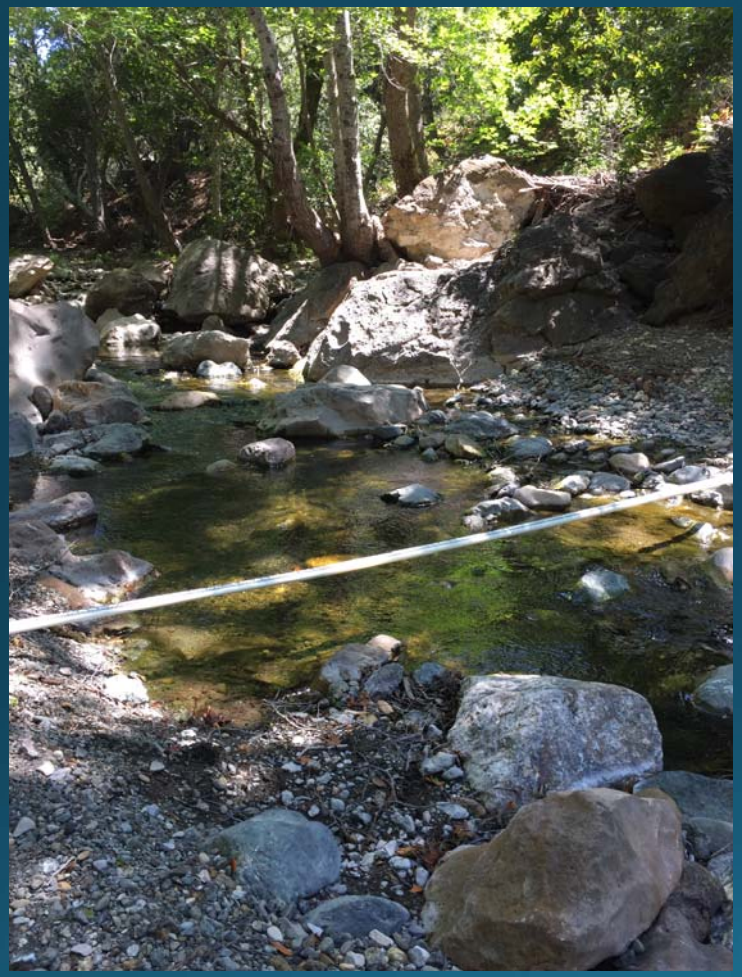


Jack Creek



Los Berros

Flowing Sites (2016)



Upper Santa Rosa

Upper San Luis Obispo

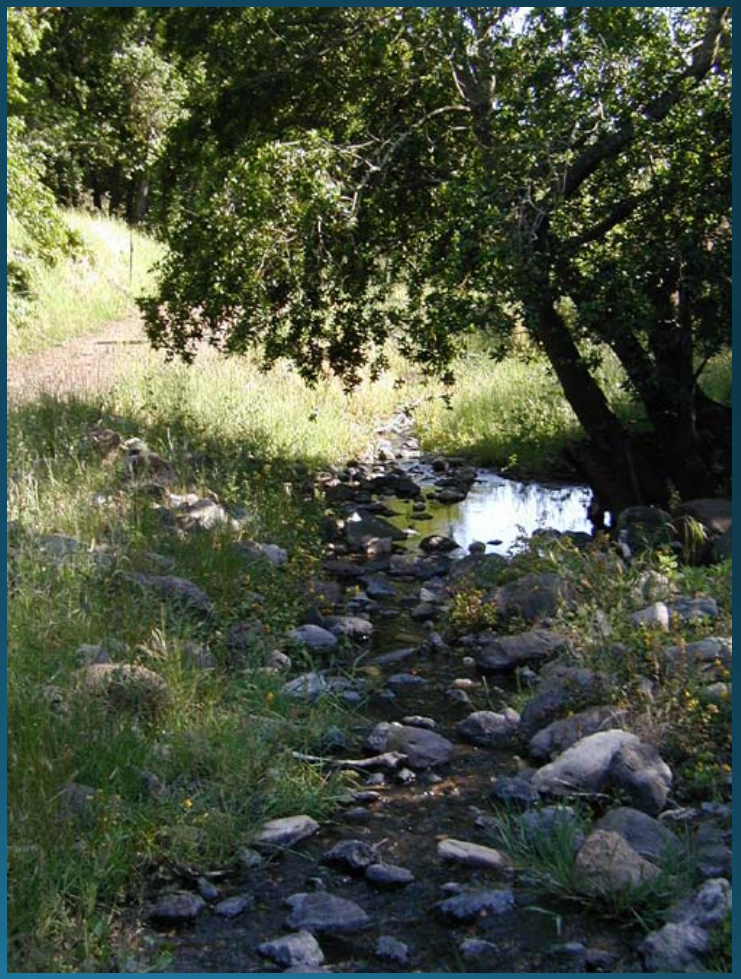
2. Measuring High and Low Flows at 12 County Sites

- SLO Creek
- Arroyo Grande Creek
- Chorro Creek
- Los Osos Creek
- Santa Rosa Creek
- San Simeon Creek

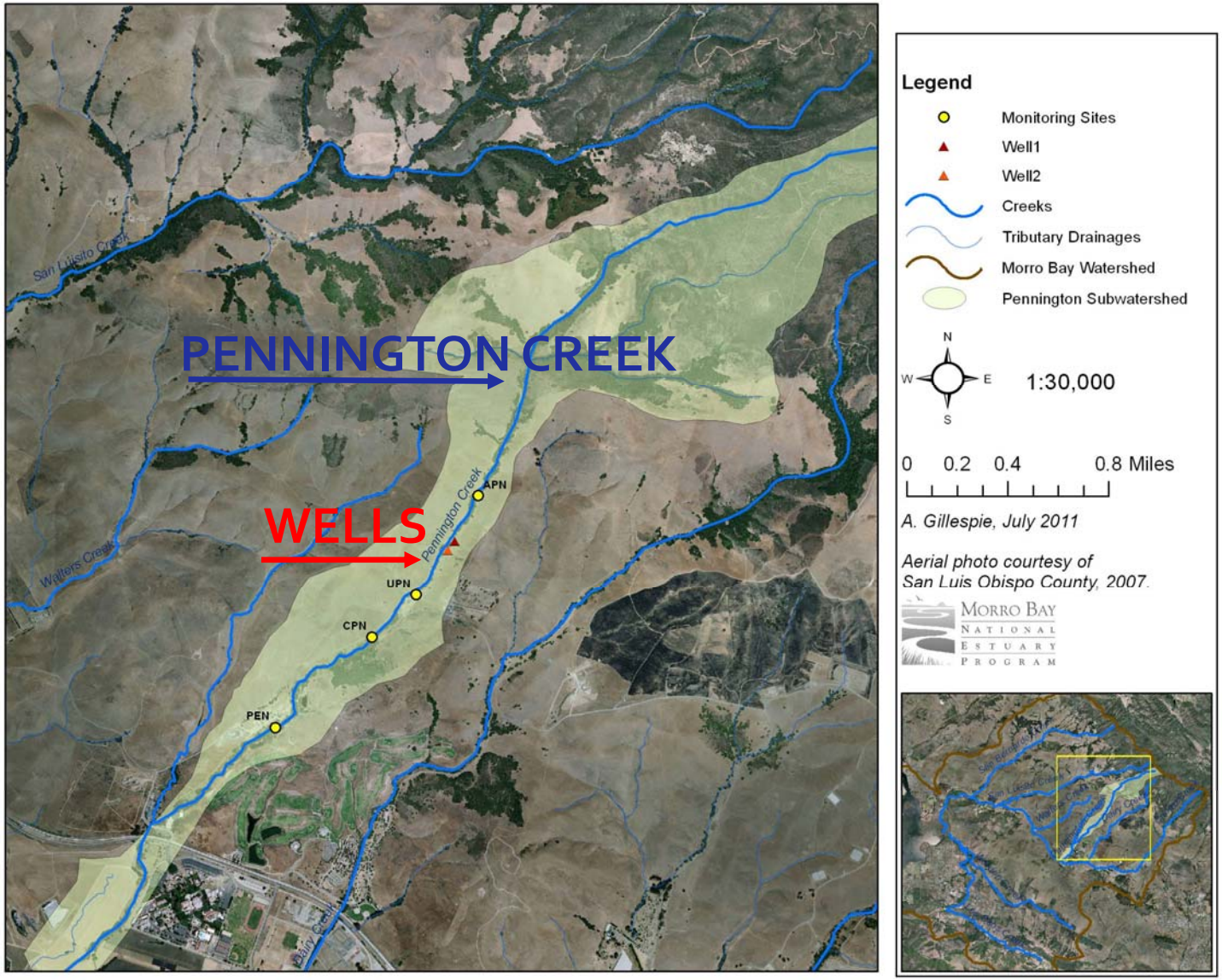
Middle AG Creek

3. Evaluating Completed Rain Water Capture Project, Cal Poly

Escuela Ranch, Cal Poly



Pennington Creek

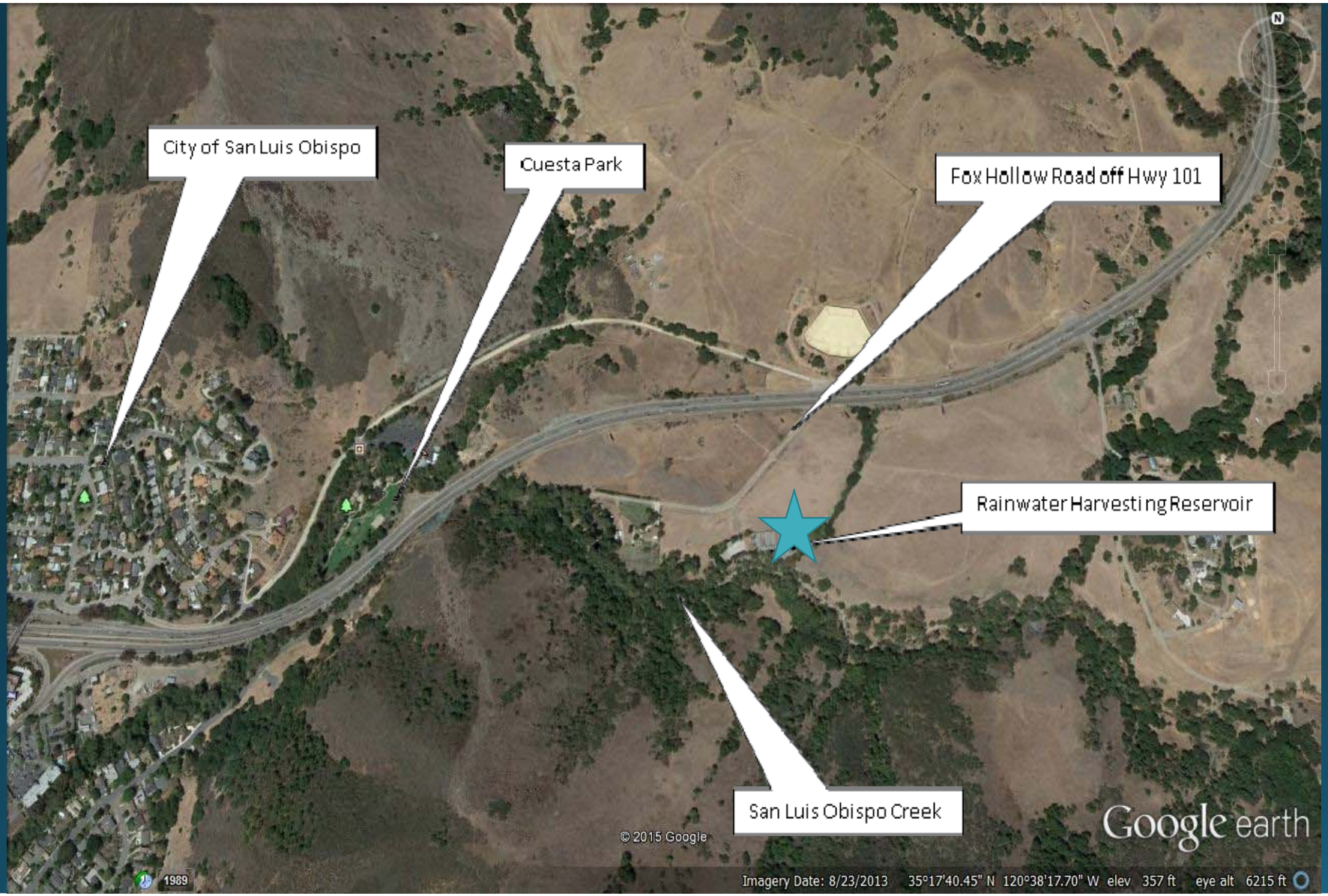

PENNINGTON CREEK
WELLS
San Luisito Creek
Walters Creek
Pennington Creek
APN
UPN
CPN
PEN
Legend
Monitoring Sites
Well1
Well2
Creeks
Tributary Drainages
Morro Bay Watershed
Pennington Subwatershed
N
W
E
S
1:30,000
0 0.2 0.4 0.8 Miles
A. Gillespie, July 2011
Aerial photo courtesy of
San Luis Obispo County, 2007.
Morro Bay National Estuary Program

3. Evaluating Completed Rain Water Capture Project, Cal Poly

Rainwater captured from the Bull Pen Unit roof surface in winter

Stored in tanks, used instead of wells in summer

4. Collect pre-project data for proposed City of SLO Rainwater and Peak Flow Storage Reservoir (Fox Hollow Reservoir)


City of San Luis Obispo
Cuesta Park
Fox Hollow Road off Hwy 101
Rainwater Harvesting Reservoir
San Luis Obispo Creek
© 2015 Google
Google earth
1989
Imagery Date: 8/23/2013 35°17'40.45" N 120°38'17.70" W elev 357 ft eye alt 6215 ft

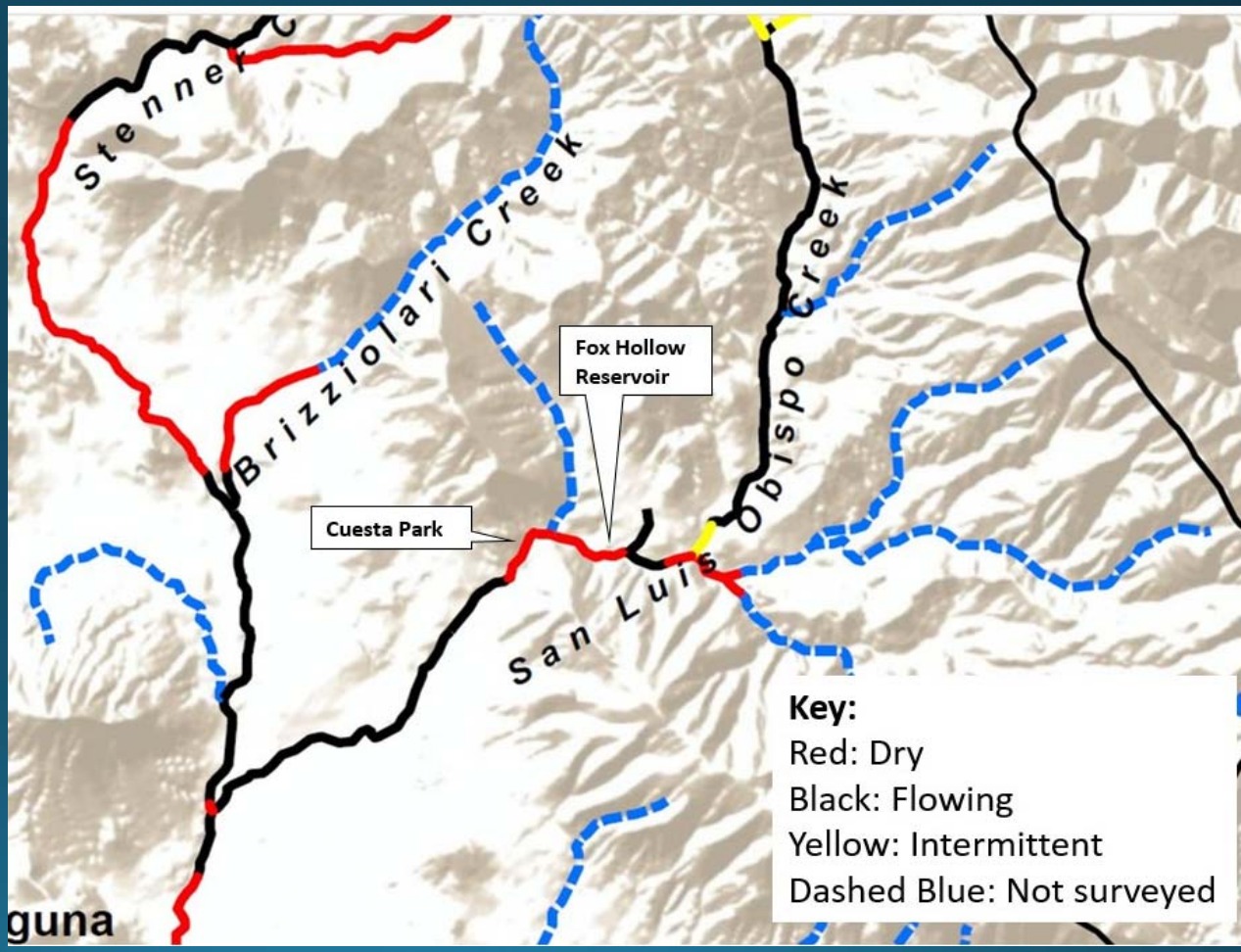
4. continued….

Existing Fox Hollow Reservoir, Exterior

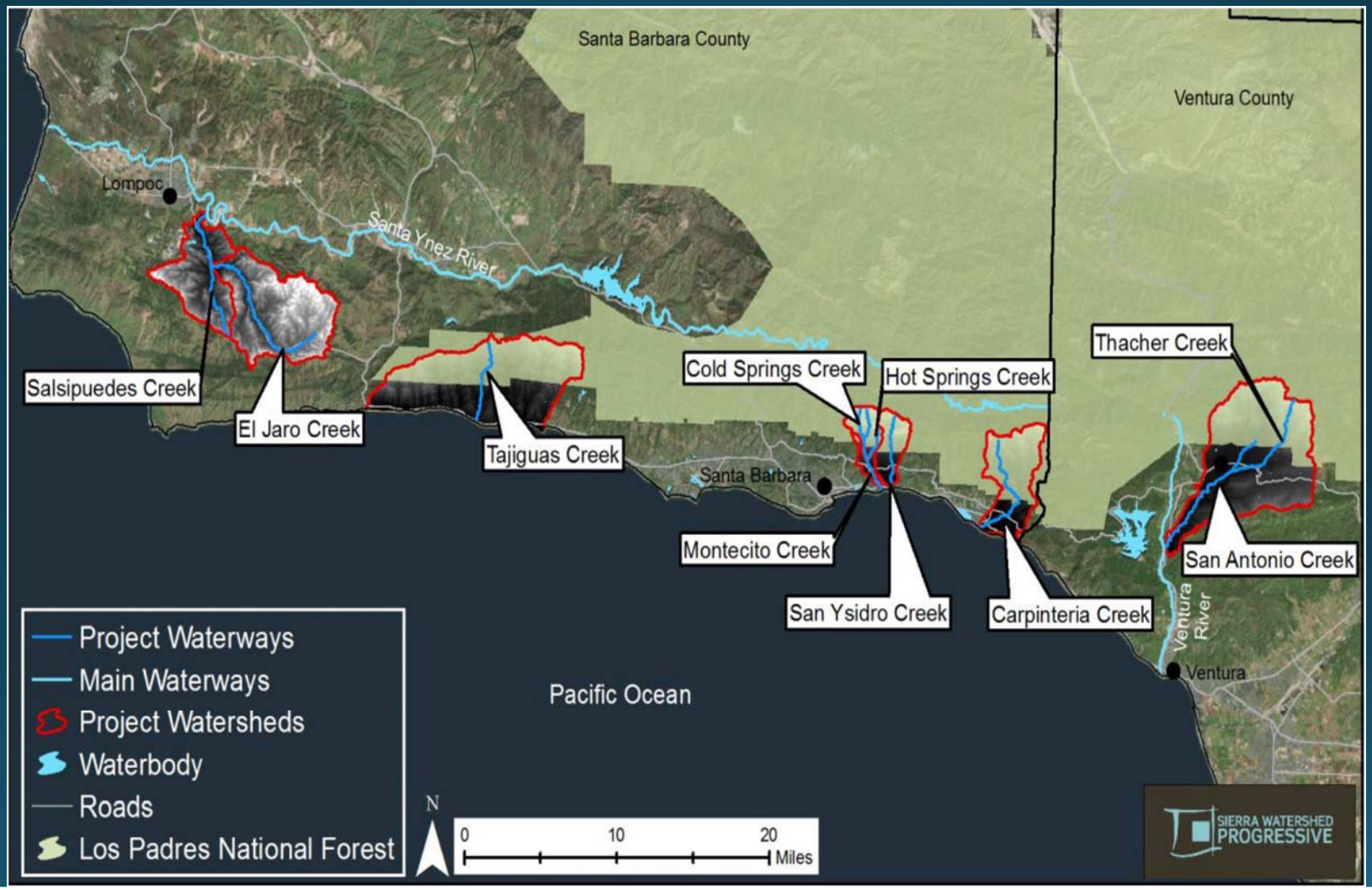
Existing Fox Hollow Reservoir, Interior

4. continued….

- ✓Ultimate goal is to retrofit existing reservoir
- ✓Catch and store rain water
- ✓Catch and store peak flows
- ✓Release water into SLO Creek in summer



5. Develop Plan to Enhance Stream Flows in Santa

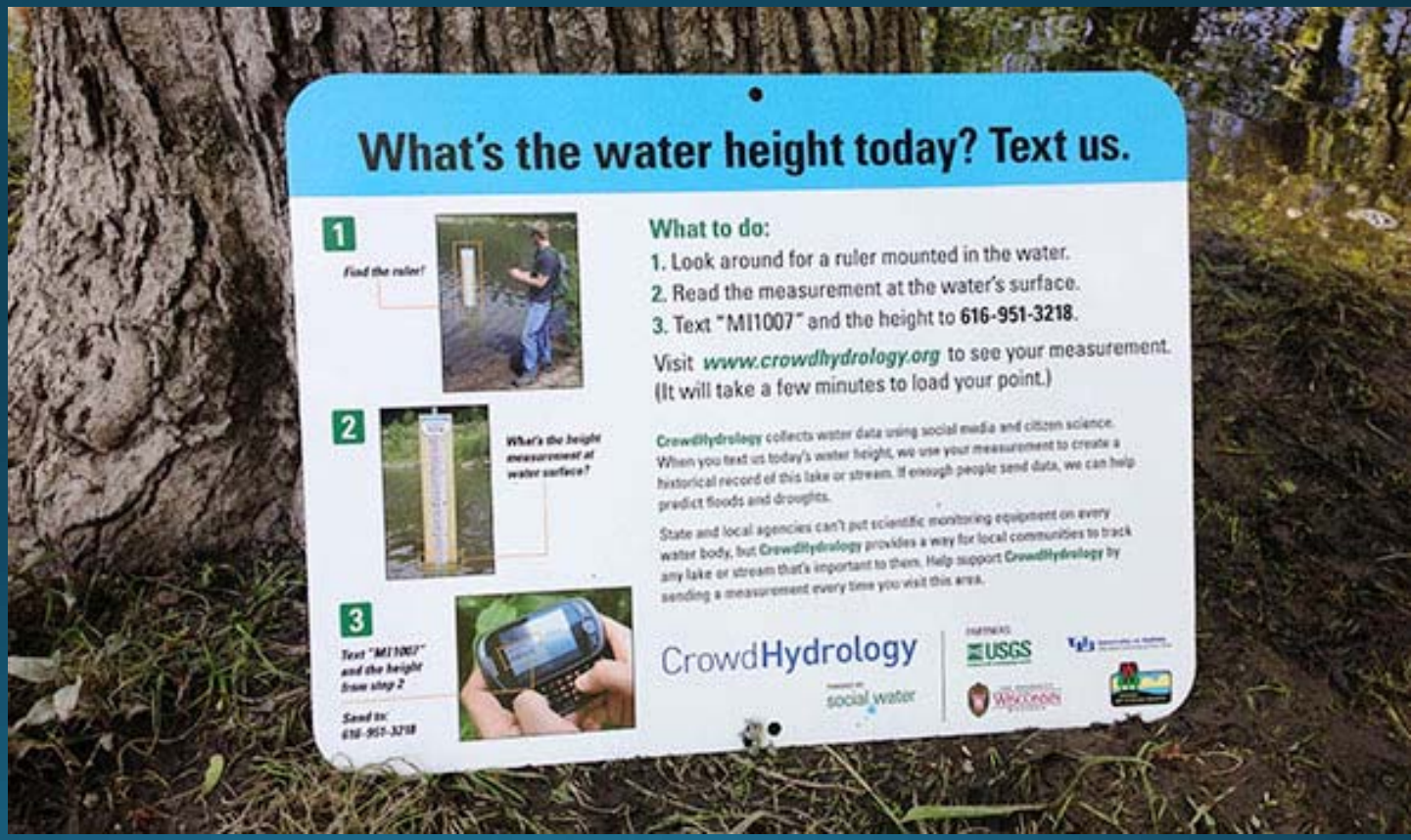


5. Develop Plan to Enhance Stream Flows in Santa Barbara and Ventura Counties

- ✓ Identify and prioritize water conservation and reduced consumptive use opportunities for larger water users (public lands, schools, and commercial enterprises, and agriculture)
- ✓ Identify and prioritize opportunities for infiltration, capture and storage, and percolation for larger water users

Crowd Hydrology

- ✓ Citizen Science
- ✓ Education
- ✓ Resource Protection By and For Water Users



For more information:
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Central Coast Salmon Enhancement

Healthy Fish
Healthy Watersheds
Healthy Communities