

Cachuma Project Water Rights Hearing

October 2003

Panel V

Presenter:

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Issues Related to Oak Trees, Sensitive Species, and
Recreation

URS Corporation

Scope of Testimony

- Three Public Trust Resource Issues:
 - Effect of proposed surcharging on oak trees along Cachuma Lake shoreline
 - Effect of downstream releases for fish on sensitive wildlife species along lower river
 - Effect of proposed surcharging on recreational facilities and uses at Cachuma Lake County Park

Basis of Testimony

- My investigations and studies on these issues for the SWRCB Draft EIR, and Reclamation's FMP EIR/EIS
- Personal knowledge and observations from other studies on the river and at the lake since 1989

Impact of Surcharging on Oak Trees

Lake Elevations

- Current lake elevations:
 - Maximum lake level = 750.75 feet
 - Median lake level = 733.7 feet
- Lake levels with 3-foot surcharge
 - Maximum lake level = 753 feet
 - Median lake level = 734.6
 - Maximum lake level would occur 9 % of the time, on average
 - Average duration of maximum level = 4 months

Oak Trees Along Shoreline

- Oak trees are abundant along the shoreline
- Field studies conducted to estimate oak trees in 3-foot inundation zone and in 3-foot wave action zone
- Few trees in the current inundation zone due to losses over the past 50 years
- Only a small percentage of mortality or poor health in wave action zone



04/23/2002



05/21/2002



1.15.200



1.15.2001

Projected Impact on Oak Trees

- Most trees in the new inundation zone will be lost over time due to periodic inundation during a 15 to 20 year time frame, possibly longer
 - *339 trees*
- Only 25 % of trees in wave action zone expected to be adversely affected
 - *119 trees*
- Total number of trees potentially affected:
 - *452 trees (412 coast live oak, 40 valley oak)*

Oak Tree Replacement Program

- Designed to replace oak trees prior to loss, and to reflect the rate of loss over time
- Long-term program designed to allow improvements in propagation methods as restoration is monitored
- Designed to use state of the art restoration methods, including long term maintenance
- Designed to ensure 2:1 final oak tree replacement

Planting Scheme

- Primary restoration site is County Park
- Secondary restoration sites: Storke Flats, Santa Ynez Point, Bradbury Dam
- Replacement Planting Phasing:
 - Plant trees needed to replace $\frac{1}{2}$ of the estimated tree loss (251 trees) immediately
 - Plant trees to replace those observed to be lost over the next 10 years
 - Plant final trees at the end of 10 years





Oak Tree Replacement Ratios

- Designed to ensure 2:1 final oak tree replacement
- Expected mortality rate at County Park restoration site is 33 %
- Plant at 3:1 ratio to offset expected mortality (1,356 trees)
- Increase the ratio over time if monitoring shows higher mortality rate
- Ensure final 2:1 replacement

Impact of Downstream Releases on Sensitive Wildlife Species

Sensitive Wildlife Species

- California red-legged frog – federal threatened species
- Southwestern pond turtle – state species of special concern
- Two-striped garter snake – state species of special concern
- Southwestern willow flycatcher – state and federal endangered species
- Least Bell's vireo – federal endangered species

Effects of Downstream Releases for Fish

- Low flows below the dam will occur for a longer period of time and over a longer portion of the river
- Effect will attenuate with distance, ending near Alisal Bridge
- Low flows will enhance aquatic and riparian habitats which will have beneficial impacts on these species

Effect of Releases on Flycatcher Nesting

- Nesting populations downstream of Buellton and Lompoc
- Nest are occupied May through July; on stems 3 to 15 feet high
- Releases for BNA pass through Buellton area
- Flows could impinge on shrubs with nests, but investigations indicate that a significant impact is unlikely
 - *Flows are less than 12 inches deep*
 - *Most releases after July*
 - *Population is thriving*

Impact of Surcharging on Recreation

County Park at Cachuma Lake

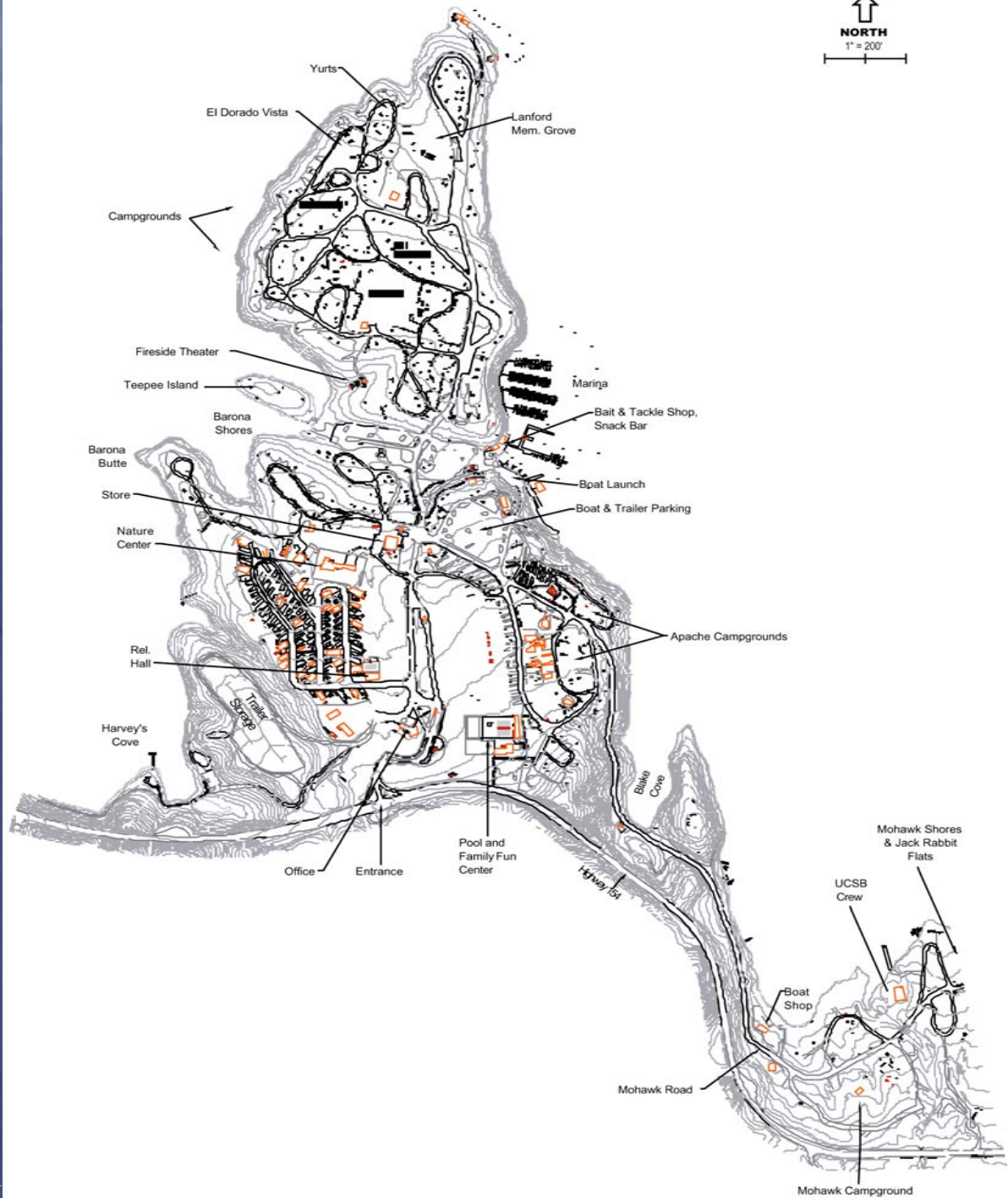
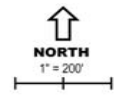
- Santa Barbara County constructed and operates the County Park under a 50-year contract with Reclamation
- Contract expired in 2003; under a 2-year interim contract
- Full amenities at the Park
- Primary attractions: fishing, camping, nature tours
- 900,000 visitors per year

Impacts of Surcharging

- New higher water level would affect critical and non-critical facilities
- Effects from higher static water levels, and from wave action
- Higher water levels will inundate certain facilities, or require closure
- Impacts would occur every 3 years, on average, and last for about 4 months
- Park has experienced high water levels during storms

Facilities Affected by 3-Foot Surcharge

- Critical facilities affected with no wave action:
 - Drinking water intake and treatment plant
 - Boat launch ramp
 - Marina path and floating docks
- Critical facilities affected with wave action:
 - Sewer lift stations
 - Marina shops



Mitigating Recreation Impacts

- Need to relocate facilities; funding is greatest challenge
- County has initiated actions to relocate facilities using state and Reclamation funds and County funds:
 - Lift stations
 - Water treatment plant
 - Boat launch
- County, COMB, and Reclamation exploring phased surcharging to allow time for completion of facility relocation

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