County of Yolo

PLANNING AND PUBLIC WORKS DEPARTMENT
292 West Beamer Street Woodland, CA 95695-2598 (530) 666-8775 FAX (530) 666-8728
www.yolocounty.org

JOHN BENCOMO
DIRECTOR

Yolo County Cache Creek Technical Advisory Committee
Summary Minutes
December 6, 2004

Members in Attendance: Kevin O'Dea, Jeff Hart, and Geoff Schladow

County Staff: Linda Fiack, Dimitrios Georges

Others in Attendance: John Watson, Bob Schneider, Bruce Simpson, Mark Harrison, Jack White, Jan Lowrey, Tim O'Halloran, Barry Cavanna, Darell Slotton.

Members Absent: None

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1. CALL TO ORDER

The meeting commenced at 10:14 a.m.

2. PUBLIC COMMENTS

Linda Fiack commented that a presentation was scheduled by the Northern California Water Association (NCWA) for December 7 at the regularly scheduled County Board of Supervisors meeting. The presentation will include discussions by SAFCA, the County WRA, Tuleyome, and others.

3. ADOPTION OF MINUTES

The minutes of the meeting of November 1, 2004 were not adopted as Tim O'Halloran had received his copy in the mail, and requested additional time to review and comment.

4. STAFF UPDATE

Capay Open Space Park: Questa Engineering is continuing the process of developing bid specifications (approx. 50% complete) for the park, which will be located just north of the town of Capay off of Rd 85. It is anticipated that staff will be seeking possible approval of the bid package from the Board of Supervisors in January 2005 with the intent of going out to bid for project implementation in early Spring. 54 trees purchased as part of a mitigation package for the CR 32 road widening project were planted by the County and the Yolo County Conservation Partnership Program (YCCP).

General Plan Update, Conservation Element: Parks and Resources Management staff reviewed the draft conservation element at the request of the Planning Department.

Wild Wings Open Space Parcel: Project is nearly complete and is under 90-day maintenance period for the plant material.

Tamarisk/Arundo Eradication Proposal (Upper Cache Creek) Sponsored by the Resource Conservation District: RCD is seeking a grant from the State Department of Fish and Game/Wildlife Conservation Board to coordinate cooperators and landowners to remove Tamarisk and Arundo from the upper Cache Creek watershed (Capay Dam upstream to the Cache Creek Regional Park; Cross Creek, Hamilton Creek, and Salt Creek. Dimitrios Georges participated in a tour sponsored by the RCD in late November to meet with landowners and cooperators who may be participating in the eradication effort. The County would cooperate on two sites: the Cache Creek Regional Park and Nichols Park.

Digital Terrain Modeling (DTM) Contract: County staff is continuing to work with Ayers Associates in the preparation of the yearly DTM data, which depicts the topographical conditions in and along Cache Creek. Final maps are expected in January 2005.

Tamarisk Water Usage Report: As directed by the TAC in November's meeting, staff reported on some ongoing research being conducted by various groups regarding the uptake/use of water in riparian areas by Tamarisk. Research by the Nature Conservancy (TNC), and the Montana RCD (R. Shelley), was cited. TNC reports that water usage by Tamarisk in the entire USA may be as much as 5 million acre feet per year, roughly twice the water being held behind the Glenn Canyon Dam. R. Shelley reports that Tamarisk draws water from deeper in the soil profile and may draw as much as 9 acre feet of water per year for every acre of infestation.

Streambank Management Handbook for Cache Creek Landowners: Parks & Resources Management staff had conducted additional review of the final draft, and provided consultant Ann Brice with comments. Bob Schneider requested a copy for review.

Cache Creek Conservancy Project Updates: Jan Lowrey, Executive Director of the Conservancy reported that new opportunities to utilize remote sensing/satellite imagery for work along the Cache Creek watershed may be available soon through the USDA. Aerial reconnaissance may be as close as 1-meter detailing.

5. COMMITTEE REPORTS

Geoff Schladow reported that two monitoring RFP's are available by CALFED for bay/delta projects and projects in the Yolo bypass. UC Davis's proposal will be looking at changes in habitat on a relatively large scale. Jeff Hart commented that few habitat restoration projects are actually built and in the ground.

6. REGULAR AGENDA

Review of Harrison Site Observations: Chair O'Dea commented that the TAC had conducted a site visit in October to review the current conditions, and directed staff to review last years DTM's. The steep high bank on the north side of the site is unstable. Some sections of the creek channel have been incised to the point where the lower cemented deposits are exposed.

Mark Harrison, the landowner was in attendance. He stated that Cache Creek has changed in this area since he was a boy. Harrison gave a short history of his property, which includes upland terraced areas near Cache Creek. Reported that 20-30 years ago, the site was a Cottonwood forest, and later was farmed by his grandfather. A gravel mining operation before 1976 cut deep holes into Cache Creek near his property. Mark reported that he is now in the process of converting the upland areas to native grasses and Cottonwoods. Site was sprayed with herbicides to remove the Star Thistle, then planted in native grasses. Mark was concerned that the gravel bar that has formed near his restoration effort will cause the creek to cut into his property, possibly taking out his restoration efforts. Mark was wondering if the guidelines of the CCRMP could be utilized to effectively mitigate the possible land losses to his property by the creek. He proposed possibly routing the flow to redirect the energy away from his property and reduce the cutting action into his restored upland areas.

Chair O'Dea commented that he and the TAC would study the situation and Mark's request further. Jeff commented that vegetation can affect flow and direction, and Chair O'Dea commented that new vegetation on the gravel bar is currently affecting the direction of the flows. Chair O'Dea stated that new deposits in the creek would continue no matter what is done with the channel. A two-year event will cause the creek to flow over the existing gravel bar changing the deposits above and below the Harrison property.

Jan Lowrey commended Mark Harrison's restoration efforts on his property, and appreciated his land stewardship. Jan commented that this section of the creek has recurring problems because of poor management of the creek by the past gravel mines (prior to CCRMP) in this reach of the creek.

Geoff Schladow commented that anything that is done in this section will affect the flow downstream because this section of Cache Creek is a complex reach.

Cache Creek Suspended Sediment and Turbidity Monitoring Program Update by Geoff Schladow: Geoff reported that this was a one-year study *"to provide baseline measurements of suspended sediment concentration and turbidity as a function of flow rate and locations along the creek."* The study looked at flows at 8 points of Cache Creek on 12 dates in 2005. Chair O'Dea asked why the project was completed. Geoff stated that the baseline information was necessary to begin to examine how the turbidity would affect restoration efforts and how sediment transport might affect downstream sections of Cache Creek. Jan Lowrey stated that he would like to see additional studies to compare subsequent flows. Linda Fiack stated that this contract with Geoff was a 1-year trial, and asked if multi year contract would be better, and suggested the TAC consider the contract renewal issue at a future meeting. Jan suggested that flows at different

sampling sites may not relate to each other. Geoff cited that variables in the creek occur throughout the system due to diversions and runoff.

Presentation by Dr. Darrell Slotton Regarding Three Year Mercury Monitoring Study on Cache Creek and the Cache Creek Conservancy's Wetland: Dr. Slotton presented an overview of his mercury monitoring efforts throughout the state, including Cache Creek, Gordon Slough, and the Cache Creek Conservancy. He said that in most of the world, mercury problems come mainly from mercury being deposited on the land in trace amounts from the atmosphere. In California, we have a very large addition to this atmospheric mercury, in the form of deposits from past mining efforts for both mercury and gold. Mercury was used during the gold mining process to bind the finer grained gold together. The mercury could then be distilled off with heat, leaving the gold. In California, mercury was originally common mainly in the Coast Ranges, where it was mined. Mercury now found in the Sierras and downstream was mostly transported by wagon train for gold extraction.

Dr. Slotton stated that mineral mercury in creeks and rivers is not always a problem. The main problem with mercury is the small fraction that gets converted into toxic methylmercury. This is the form that increases in concentration as you move up the food chain. In humans, methylmercury affects fetuses (pregnant women) and young children the most, as the worst effects are on developing nervous tissue. Testing of certain small fish and aquatic insects can provide very localized and season-specific data within a watershed. Levels can vary throughout the system and over time. Small fish and aquatic insects are generally better indicators than large fish of mercury trends because they don't have the opportunity to wander very far or for very long before they are sampled. Larger, older fish like the ones people fish for are often not the best indicators of mercury trends because they can move around thought the drainage during their lives, accumulating their mercury in several places and over several years. Even small fish need to be sampled carefully though; he cited mercury variations of up to 200% among individual small fish in the same school.

The Cache Creek drainage transports among the largest amounts of mercury in the state to the downstream Delta and Bay, due to abandoned mercury mines in the upper watershed and the continuing leaching of mercury from these mines and from stream sediments that were contaminated over the years. Wetlands can be important to the mercury cycle as vegetated wetland environments can promote the production of methylmercury, particularly during the spring and summer periods. Dr. Slotton stated that studies at the Cache Creek Nature Preserve and nearby Cache Creek and Gordon Slough have identified the following regarding the relation of the wetlands to concentrations of methylmercury:

- Water volume in the Preserve is maintained from Gordon Slough, not Cache Creek. The Preserve was designed to have water inflow from Gordon Slough and outflow to Cache Creek during flushing. Outflows were kept to a minimum.

- Both water and fish in the wetland became elevated in methylmercury by about 2-fold, relative to conditions in the wetland's source water.

- Concentrations were highest in the wetland during the warm period between late spring and early fall.

- In Cache Creek alongside the Preserve, mercury levels in fish and aquatic insects were not found to increase, moving from above to below the Preserve and its outflow site.

- One management option for off-channel wetlands would be to eliminate outflows to Cache Creek or time them for when the wetlands are not increasing the methylmercury in the water and fish (late fall through early spring).

Linda Fiack suggested that Dr. Slotton's monitoring program and contract be discussed for renewal at an upcoming TAC meeting.

Discuss Process for Identifying Topics for Future Discussion Relative to CCRMP and Workshop Format for Technical Study (Including Chad Roberts's Letter as Reference): Due to time constraints, discussions on this topic were tabled by Chair O'Dea and will be continued at the next TAC meeting. Linda commented that an outline of Chad Roberts's letter will be prepared by staff and sent to the TAC for review.

7. ADJOURNMENT

The meeting was adjourned at 12:41 p.m.

Next meeting is scheduled for January 10, 2005.