

**CWP Sacramento River Regional Workshop Summary  
Yuba City, CA – April 2, 2008**

**OVERVIEW**

As in the prior update, the 2009 Update of the California Water Plan includes a volume consisting of Regional Reports, which describe the conditions for each hydrologic region in the State – as well as two areas of special interest (the Delta and Mountain Counties areas). Each regional report uses a standardized format in describing the current conditions for each region or area. The content for each report is being developed with the involvement of regional and local interests through a series of public workshops conducted in each region or area.

Each workshop consists of three major presentations to describe: an update on the state of Update 2009 activities; revision of Regional Report outlines, based on previous workshop results; and overview of the initial draft outline. For each workshop, most of the time is dedicated to small group review and comment of the initial draft outline of the Regional Report for that region or area. A workshop for the Sacramento River hydrologic region was held on April 2, 2008 in Yuba City, CA. Copies of the workshop presentations, handouts, and materials are available on the Water Plan website at [www.waterplan.water.ca.gov/materials](http://www.waterplan.water.ca.gov/materials).

A brief recap of the presentations is provided in the following paragraphs and the remainder of this document provides a summary of the small group discussions. Flip charts and worksheets were used to record ideas generated during the discussions and transcripts of the recorded results are located on the following pages.

Lew Moeller, Department of Water Resources (DWR) Update 2009 Project Team, made the first presentation regarding the status of major 2009 Update activities. A key element is the integration of the FloodSafe and IRWM (Integrated Regional Water Management) programs with the Water plan. This new content will be reflected in each Regional Report, as well as the scenarios and Resource Management Strategies (RMS). Other additions to the Water Plan include: quantification of scenarios and potential response packages; assessment of climate change impacts and recommended adaptation actions; and incorporation of other State plans with strong connections to the Water Plan.

Outreach efforts to regional, Tribal, and local interests are continuing to expand. A total of six drafts will be available for each Regional Reports and RMS, with opportunities to comment on the five drafts preceding the final report. Workshop sessions for RMS will occur during July and August 2008, with a conference line to facilitate participation. In addition to the feedback solicited for Regional Reports and RMS, review and comment is requested by June 30, 2008 for the Draft Assumptions and Estimate report released at the end of 2007.

In the second presentation Tito Cervantes with the Northern District of DWR, reviewed the key characteristics of the Sacramento River hydrologic region. A recap of the comments heard during the previous workshop was also provided, along with a revised outline for the Regional Report format. In the final presentation, Tito described each section of the Regional Report for the Sacramento River region. Workshop attendees reviewed, discussed, and provided suggestions for each section, as recorded on the following pages.

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**Suggestions for Sacramento River Regional Report**

**Setting**

- not just federal trust lands, also Tribal communities and allotments
- there is a disconnect between areas with water districts and those without; needs to be managed by watersheds to adjust for this. Watersheds can be used as an institutional framework for water management, as an organizing principle – need to address more than environmental factors and habitat concerns; address by area needs (e.g. map uses); also include and address urban and ag concerns within watershed for better planning and coordination
- note disconnect between different boundaries (as well as reasons for disconnect and possible solutions) – e.g. disconnect between surface water, groundwater, regional/district, and political boundaries
- on hydrologic regions map, show county lines

***Watersheds***

- Pitt River to include to Alturas/Goose Lake
- under principle streams, discuss upper watershed streams
- identify acre-feet of supply contributed by each watershed
- add Battle Creek water quality and salmon fishery issues
- add discussion of Stony Creek (inter-related with Sites Reservoir) and invasive species (arundo)
- EPA hydro unit codes and CALFED water boundaries – lack of distinct agreed upon watershed boundaries among agencies and working groups
- how water purveyor boundaries and infrastructure should influence boundaries
- headwater and foothill drainage areas are not necessarily tied to valley floor lowlands
- include rancherias as they fall within watershed
- include larger restoration projects (e.g. The Nature Conservancy, river partners, Tribes)
- links to watershed information at DWR and CALFED
- call out Sacramento River Conservation Area Forum
- integrate with groundwater basin recharge – document surface water contribution to groundwater recharge within region; watersheds have dual role for surface water and groundwater recharge; describe inter-relationship between runoff (slow and fast) and groundwater recharge
- better management of upper watersheds (meadows and uplands) can increase flexibility and utility of downstream infrastructure; e.g. meadow restoration helps filtering of sediment and nutrient exchange)
- provide links to watershed websites and list of smaller watersheds (e.g. Big Chico, Butte Creek, etc.)
- include Putah Creek, it's part of the SWP

***Ecosystems***

- riparian habitat management: elderberries are competing against wild grapes – eliminate grapes and elderberries will survive
- rice farming is providing habitat to giant garter snake along irrigation canals and laterals; Sutter County has giant garter snake habitat (in sloughs)
- dam impacts on anadromous species
- American River basin the only basin with no wildlife refuge
- purchasing easements for wetland restoration and habitat
- info source: Central Valley Joint Venture; Natural Community Conservation Plans and Habitat Conservation Plans from DFG, USFWS, and counties; Butte County HCP

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- oak woodlands protections, more thorough description on oaks woodlands
- endangered species: identify and reference programs; discuss implementation impacts to water supply (not just Delta); Clear Lake hitch is a species of special concern (endemic species)
- document work already done for restoration projects (e.g. CALFED)
- define a “standard” definition of an ecosystem (pre-Shasta? post-Shasta?); establish a timer period for ecosystems (establish baseline for eco-system) – don’t “pick and choose” from eras to create an “ecosystem”
- establish boundaries for ecosystem restoration (cant’ restore 100% of ecosystem)
- ag lands acknowledged and protected as an ecosystem (e.g. Pacific Flyway and winter waterfowl habitat)
- include culturally important landscapes (e.g. conifer, black oak, riparian/wetland, grassland); integrate the cultural perspective into ecosystem management
- DFG has jurisdiction for Sutter Bypass (riparian habitat); South of Buttes for habitat
- Butte Sink (waterfowl habitat)
- Middle Creek restoration on Clear Lake
- Feather River and setback levees

***Climate***

- beware of “tunnel vision” when it comes to addressing analysis of climate change – need broad thinking about possible changes
- loss of snowpack impacts on flooding and supply

***Demographics***

- use a MAP to show where population exists in region, not just the regional population

***Land Use Patterns***

- consider all county General Plans; map out land use
- include areas outside of the valley floor
- use info from land use planning updates
- local potential varies regarding future outcomes of local growth, land use, and population growth – ag/urban interface
- value of Sacramento Valley to provide for resources for the other parts of the State (water, ag production, etc.)
- add environment as a land use type (land use patterns)
- document economic impact of public lands to the region (loss of tax role)
- importance of ag to area economies; economic impacts when ag land is fallowed; changing land use (from ag) results in changing economies)
- impervious surfaces increase runoff, which reduces recharge and supply
- Lake County is adopting urban growth boundaries

**Regional Water Conditions**

- show graphically: maps and arrows with relative size – one color for total rainfall; separate colors for urban, ag, environmental uses

***Water in the Environment***

- identify stream flow requirements (use groundwater studies for data and analysis)
- adjudicated water: analysis of impoundments v. dedicated flows
- evapotranspiration research study ([www.feather-river-crm.org](http://www.feather-river-crm.org)) addressing native species water needs/use

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- need to address instream needs: flow, temperature, health (e.g. species diversity)
- water are causes of impacts? (e.g. in Mountain County area, deforestation and overgrazing impact groundwater and limit base flows)

**Water Supplies**

- identify groundwater basins and sub-basins; Lower Tuscan aquifer; middle depth aquifer (~600') water quality starts to degrade at Live Oak
- discuss surface water supplies: rivers, CVP, and SWP
- Shasta, Folsom, Oroville facilities (dams); local districts, irrigation districts
- Colusa Tribe has a currently unquantified water right
- (groundwater) monitoring: elevation, subsidence, quality
- document the economic impacts of water transfers (including third party impacts), look at cumulative impacts by multiple districts
- describe area of origin water rights
- transfers should be surplus to area of origin needs – including area of origin environmental needs
- stormwater capture is the “new” water supply and link regions together
- water supply in upper watersheds is very limited due to small, fractured rock groundwater basins; surface water supply is difficult due to allocations downstream
- Yuba City is taking over private well system and switching to surface water; blending would be a better option

**Water Uses**

- identify water conservation practices and benefits
- include geothermal water use
- identify water transfers and groundwater substitutions
- list urban per capita water use by metropolitan area
- water use efficiency and water recycling has a different connotation in the Sacramento region than in import areas (e.g. ag water use is “recycled” into system – not lost)
- switching from surface water to groundwater use for orchard crops (organisms in surface water are a concern)
- Sac. Valley IRWMP suggests that users totally dependent on groundwater could switch to surface water, but infrastructure and water rights not available

**Water Quality**

- identify location of septic tank use areas and discuss potential impacts on water quality
- Feather River electrical conductivity (EC or Total Dissolved Solids – TDS) limit is getting close due to increases in urbanization; has previously been considered a high-quality source); less available water because of this limit
- discuss impacts of aging wastewater treatment plants
- arsenic and nitrates are water quality issues for this region
- Sacramento Valley Water Quality Coalition
- UC Cooperative Extension water quality monitoring and yearly updates from “members” formed for ag waiver
- status of TMDLs; possible delisting of Feather River diazanon TMDL
- water temperature in rivers
- methyl mercury in habitat; TOC in habitat and ag
- much more: GAMA (State Board), Pesticide Well Inventory Report, Pesticide Dormant Spray Program – what is the data showing?, local BMPs, highlight irrigated lands – what are the results?, Dept. of Toxic Substance Control data
- urban impacts

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***Project Operations***

- identify operation requirements and review technology and efficiency improvements of facilities
- operation spills – where they how and how they contribute to other areas
- exchanges between CVP and SWP
- reoperation of systems – i.e. dams (do it already)
- Oroville operations: water temperature; flood management v. water transport; species needs
- recognize competing needs – what’s the hierarchy for project operations: public safety, water supply, flood control, threatened and endangered species, instream flows
- need to forecast improvements or constraints

***Water Governance***

- groundwater management ordinances in Glenn County – provides for actions as a result of changes in groundwater indicators; describe Basin Management Objective programs
- Tribal authority
- Colusa and Butte counties in process of groundwater plan and ordinances
- what is intended by this section – a listing of all entities having governance over water?
- several jurisdictions have governance over groundwater – each having own view of how to regulate groundwater; Four County Group
- water districts have water management options IF they can get cooperation with project operations
- ordinances related to transfers
- discuss new State laws
- Federal authority and oversight should be identified
- the important of local control and sovereignty needs to be recognized and supported

***Flood Management***

- dredging of Feather and Sacramento Rivers to provide channel capacity (currently silted)
- change perception/view of flood management in order to “restore” upper watersheds to detain/attenuate flows to be released at lower rates over time
- look at broader picture with fewer specifics
- future growth and land use will influence major floods

Historic Floods

-

Flood Hazards

-

Institutions

-

Existing Flood Damage Reduction Measures

- clarify how resources are distributed for flood improvement, need equitable allocation
- how upper watershed management assists in downstream flood control and protection
- ramifications of FEMA Updates – costs of insurance are increasing for homeowners
- include non-traditional flood control methods such as set-back levees
- include single-sided levees

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**Relationship with Other Regions**

- exports to other regions (see water quality of Feather): beneficiaries of excellent water should fund projects and programs to protect and preserve this resource
- Yuba County Water Agency transfers to other areas
- Butte County SWP entitlement transferring water
- Butte Irrigation District groundwater substitution with surface water transfer
- all regions throughout the State should be putting in the same effort, at the same time
- imports from other regions
- relationship with North Coast on Trinity

**Regional Water and Flood Planning and Management**

- watershed assessments and management plans
- add other regional planning and plans: urban water management plans, groundwater management (AB 3030) plans, county General Plans, feasibility studies
- place accomplishments and challenges at the end of this section (not in the middle)
- Tribal authority and planning (e.g. Lake County)
- reference Four County water quality strategies
- agreements to share water with other regions (if there are any); supporting infrastructure; joint efforts
- have maps showing quantities for wet, average, dry years

***Integrated Regional Water Management***

- develop a list of all studies completed and proposed for groundwater and recharge areas
- Roundtable of Regions: summits and monthly conference call (contact Tracy Hemmeter at Santa Clara Valley Water District for additional information) – collaboration and input on IRWM guidelines
- CABY workshop on regional Prop 84 coordination
- provide a summary paragraph regarding IRWMs overall, then link to a summary for each IRWM
- what are the authorities?
- identify General Plans that have a Water Element

***Accomplishments***

- increase in watershed management activities and organizations at local level
- increased recognition of environmental stewardship
- increased understanding of local resource concerns/issues and local involvement (e.g. water use efficiency and BMPs)
- greater awareness of water issues, better understanding of different areas of concern
- better process of defining changes in water supply and quality over time, which helps improve decision-making
- Tribes working with counties and watershed groups on grants (Lake County Prop 50 grant)
- modeling
- BMP coordination
- watershed accomplishments (source of info: Sacramento River Watershed Program, The Natural Resource Project Inventory)
- groundwater analysis
- joint Yuba County/Sutter County HCP

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**Challenges**

- overcoming environmental issues
- cost/benefit and finding funding for infrastructure
- balancing meeting local water needs associated with growth with out of area demands for water
- acknowledgement of climate change by general public and what can be done on the water side to produce positive results
- projecting population and growth trends to adequately address water supplies for the future
- equitable distribution of conservation requirements
- overcoming inter- and intra-agency rivalries and jurisdictional boundaries
- jurisdictional issues in coordinating regional approaches, division of resources
- this region bears the brunt of addressing environmental impacts
- determining groundwater supplies and “sustainable yield”
- costs for sewer system hookups – need some form of assistance
- private wells: what is the water quality; high dependence on groundwater
- relating risk analysis with level of detection regarding water quality contaminants
- no overall management of groundwater
- conveying the value of environmental services and a healthy connected aquifer

**Drought and Flood Planning**

- summarize drought contingency plans by region
- obtain Colorado River operations plan regarding droughts
- matching funds for local share of flood control projects impact areas with limited population (and limited pockets) for local share – who benefits from these projects?
- Northern California flood prevention facilities provide groundwater recharge and capture winter flows for future use; reoperation and maintenance of system

**Looking to the Future**

**Future Scenarios**

- environmental justice needs
- Tribal jurisdiction
- urban water management by private entities
- need to be modeled and solved on a regional basis
- how to characterize – is a function of funding

**Climate Change**

- Tribal studies on climate change for temperature and species (29 Palms); access EPA grant
- precipitation changes are often a function of timing

**Response Strategies**

- small- to medium-sized rock check dams, at high elevations in watersheds, may provide increased recharge and attenuate peak flows
- identify other storage options to help address climate change and increase management options
- adaptive responses need to include more/better coordination between upper and lower watersheds (e.g. better communications can improve flood warning and response)

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- streamline environmental review process for water transfers (to address drought conditions); suggestion: DWR and BOR should prepare programmatic EIR for transfers, ahead of transfer deadlines (SAWF concept)
- Sites Reservoir could provide flexibility to provide environmental water
- develop alternate water supply systems (e.g. use of stormwater runoff)
- stormwater runoff capture and reuse – describe winter losses of surface water out of basin that could be captured for storage and later reuse; holding facilities need to be placed south for winter capture
- desalination of brackish groundwater
- north-to-north water transfers will become more prevalent as Sacramento River water rights are examined. E.g. for environmental water needs in Delta (e.g. use additional Sacramento River water to maintain Delta flows, transport Mokelumne water directly to Bay Area for use)
- should be looking at blending of groundwater and surface water resources for water quality and cost benefits
- reuse; conservation; stormwater management
- protection of water quality

***Implementation Next Steps***

- river-to-tap (maybe groundwater too) education and outreach
- Lower Tuscan aquifer study
- General Plan updates
- need tangible benefits to Areas of Origin (tax relief, funding support, etc.) – recharge credits; develop and adopt Area of Origin water rights language; beneficiary pays for structural improvements
- develop pilot “adaptation” programs to test strategies for reoperation and management due to climate change
- look for opportunities for partnering to increase watershed funding and to improve system operational efficiencies (e.g. Sacramento and Mountain Counties regions)
- General Plans need to recognize flood/floodplain management and mapping; local flooding issues need to be dealt with in planning process – historic floodplains tend to filled and developed
- at Clear Lake, erosion control – soil is rich in phosphorus, impacts to reservoirs
- metering for unmetered areas

**Water Portfolios from 1998 - 2005**

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**Selected References**

**Questions**

- Are there any regulations regarding water quality for private wells?
- Who is accountable for groundwater management?