-- DRAFT --

BDAC Water Use Efficiency Work Group
Meeting Summary
August 1, 1996

The third meeting of the BDAC Water Use Efficiency Work Group was held on Thursday August 1, 1996 at the Resources Building from 9 a.m. to noon.

(Some attendees who arrived late and who did not sign in are not listed below)

BDAC Members of the Work Group present were:

Judith Redmond, Chair	Don Bransford	Howard Frick
Alex Hildebrand		

Invited Participants of the Work Group present were:

Byron Buck	Ronnie Cohen	Bill Jacoby
Susan Munves	Betsy Reifsnider	Palma Risler
Brad Shinn	Keith Watkins (for Ed Craddock)	

CALFED Staff present were:

Rick Soehren	Param Dhillon	Michelle Wong

Other Participants included:

Lynn Barris	Glenn Birdzell	Kirk Brewer
Linda Cole	Sina Darabzand	Baryohay Davidoff
Bill DuBois	David Fullerton	Tom Gohring
Mike Heaton	Jeff Jaraczeski	Lance Johnson
Bill Johnston	Dennis Letl	Dennis O'Connor
Joan Ryan	Craig Scott	Lora Steere
Stacy Sullivan	Jeanette Thomas	Glenn Totten
Marc Van Camp	Greg Wang	Greg Young

Work Group Chair Judith Redmond explained that the purpose of this work group meeting is to briefly discuss and comment on the draft *Urban Water Conservation Strategy - Objectives and Mechanisms* paper and to spend the remainder of the meeting discussing agricultural conservation issues. The next step regarding urban water conservation will be to add an "approaches" section to the draft urban paper. Possibly, this can be drafted before the next meeting on August 28.

Judith called for comments and discussion on the draft urban paper from those present. The majority of responses indicated that the objectives and mechanisms as presented in the paper well defined the goals of the group. Some changes and additions to the objectives and mechanisms

were mentioned. These included:

- modify the objective directed at strengthening implementation of landscape BMPs to state that the landscape BMPs need review to determine potential water savings and mechanisms that can be used to achieve them.

- modify the objective stating that a high "floor" level of conservation will occur to include mention of the significant statewide population that is associated with the half of urban agencies that have signed the MOU..

- further modify the objective related to a high "floor" level of conservation to imply that the level will not be a defined quantity of water but would instead be a level of implementation in the urban sector.

- add an objective targeted at removing disincentives for urban agencies to conserve (mainly targeted at retailers who buy from wholesalers). Disincentives can include lack of appropriate drought water allocation plans by wholesalers.

- modify Tool #8 under the example of actual use portion to remove the sentence implying that water users switch to groundwater to avoid the CVP restoration tax. Change the sentence to instead state the user fees may make the cost of surface water more than the cost of groundwater and users may switch for financial reasons.

During the discussion on the draft paper, the group expressed the desire to see objectives and tools grouped together to form synergistic actions. There was also discussion regarding the meaning of having a "floor" level of conservation as a prerequisite for new supply and conveyance features in the CALFED process. Rick Soehren stated that the intention of CALFED is to move actions relating to new supplies and water use efficiency forward simultaneously. It is not the intention that one must happen before the other. However, Rick pointed out that the public comment the Program has heard most often is that current supplies must be used efficiently before new supplies are developed. Also, "floor"levels of efficiency will not be defined using target quantities. This was a concern of some of the group. The use of the term "floor" may be problematic.

A question regarding the lack of mention of tailwater returns that contribute to stream flow was brought up. The concern centered around the recognition that some agricultural conservation

measures could adversely affect return flows and therefore stream flow, but this has not been mentioned or acknowledged as part of urban discussions. This was primarily because only coastal agencies were being discussed and their discharges do not augment streamflow.

Discussions at the prior Work Group meeting centered more on compliance and not on exemption. It was pointed out that the urban MOU allows for exemptions from Best Management Practices (BMP) implementation if the BMP is not cost-effective. Compliance is judged either by implementation or through proving of non-cost-effectiveness. This is similar to a water supplier who serves an industrial area gaining an exemption from performing residential type measures. Acknowledgment of this point should be added to the draft urban conservation paper.

Concern was expressed by some group members over the negative impact conservation measures can have on water agency sales and thus, water agency budgets.

There was considerable discussion relating to a certification process and what role the California Urban Water Conservation Council (CUWCC) might play. DWR's Water Conservation Office supports a certification process and feels that some regulation is needed to improve levels of implementation. The most recent round of Urban Water Management Plans (required by law) has shown very poor implementation levels. Concern was expressed by several over creating another bureaucracy for certification. The CUWCC is currently moving forward with programs that are addressing measurement of savings and evaluation programs. However, others in the group do not feel that self-evaluation/self-regulation could work. Concern over the role of the CUWCC was expressed if they were not involved in the certification process. Would the CUWCC not be needed? Would people care if the CUWCC went away? These questions were posed but not answered. It was mentioned that the EPA uses a combination of self-regulation and agency review. However, they have found that many agencies have submitted inadequate or incorrect reports and data. There is a need for an ultimate authority to ensure compliance. It was felt by some that there could be a link between some certifying agency as overseer and the CUWCC as evaluator.

At this point, Brad Shinn introduced agricultural water conservation issues and the AB 3616 process. Several people, representing various geographic agricultural areas, presented information on hydrologic conditions and conservation potential.

Jeff Jaraczeski talked to the group about the value of water use in the Sacramento Valley for environmental benefits. These include seasonal wetlands and miles of riparian corridors. Conservation measures could adversely impact these benefits. Agricultural water users in this area support using water more efficiently, but caution that impacts need to be addressed. An example of more efficient use was given. The example follows:

Current changes in rice straw burning laws are forcing rice growers to turn to alternative methods to remove straw. One method is to flood the field after harvest and leave it flooded until early spring. This method also creates rest and forage areas for wintering waterfowl. However, this method is being used in some areas that are along the upper edges of the rice growing regions, areas that are not viewed as most desirable for habitat. At the same time, fields adjacent to wildlife refuges and in prime locations are still being burned. From a regional perspective, it would make more sense to burn the upper fields and flood the lower fields (using the same amount of water). This is a more "efficient" use of water (i.e., greater multiple benefits).

Bill Johnson talked to the group about water issues in the San Joaquin Valley and the current level of water use efficiency. According to a UC Davis report (1982), the potential for conservation in the San Joaquin Valley is only 290,000 acre-feet. In addition, water savings in the San Joaquin Valley is typically used for local, unmet agricultural needs and does not produce water for use elsewhere in the state.

There was a brief discussion regarding the use of incentives to have growers switch crop types to lower water using crops and thus save water. The point that market economics dictate the crop selection of many growers (and not crop subsidies) was made by some of the group. The counterpoint was made that crop selection based on an water incentive was no different than crop selection based on crop subsidies. There was no further discussion regarding incentives for lower water using crops.

Alex Hildebrand talked to the group about Delta and Delta tributary agricultural water issues. Currently, during summer months, flows from the San Joaquin River never make it to the central Delta as a result of riparian and export pumping. Implementation of conservation measures that further reduce agricultural return flows, combined with spring releases for fish flows, would further reduce summer flows into the central Delta. Alex stated that importing water brings several million tons of salt into the San Joaquin Valley each year but there is no drain to take it back out. What little does leave, flows into the San Joaquin River and degrades the quality of water in the Delta. If summer tributary flows are reduced there is less blending water available to counter the high resultant salt load in the south and central Delta. The San Joaquin valley is already becoming too efficient. The idea of recirculating water down the DMC during certain months to maintain salinity standards was also discussed. Alex also stated that changes in the timing of releases and the location of diversions could be made to improve system flexibility.

There was some discussion on the past use of groundwater basins in the Sacramento Valley for water supply. This use resulted in impacts to other groundwater users and some incidents of subsidence. Some in the group felt that much more research is needed prior to using these groundwater basins as large reservoirs. It was also felt by some that current assumption regarding

groundwater used in DWR models is incorrect. It was generally agreed that any use of groundwater would need to be managed and monitored.

The point was made by some of the group that the presentations regarding agricultural water issues should not be construed as wanting "status quo". Rather, the agricultural community wants recognition of hydrologic and other differences between agricultural regions and that there needs to be flexibility in whatever is developed. The AB 3616 process (agricultural MOU) was designed to allow for flexibility while maintaining consistent analysis. The process includes analysis of external factors such as environmental and third party impacts. Only measures that have a net benefit are recommended. Some environmental interests are concerned that the MOU does not include required implementation of efficiency measures like the urban MOU. The main focus of the MOU, it was felt by some, was to allow agriculture to document its current level of efficiency.

There was some discussion regarding the fact that state and world-wide population is increasing and agricultural land is needed for food production. It was felt that removal of any land from production would not be in the best interest of society's needs for food and fiber. In addition, it was stated that export markets continue to grow and bring the state tremendous amounts of capital and we should not reduce the current levels of production.

The discussion began to focus on the goals for the agricultural water use efficiency component of CALFED. Some believe the purpose should be to get more use out of the water currently used. Others feel that efficiency improvements should be used to make water available for other uses. It was felt by some that the focus should be on approaches to use water more efficiently within a region, i.e., a watershed approach.

Judith focused the group discussion back to the need to develop a set of objectives for agricultural conservation approaches. It was generally agreed that, with the exception of those specifically directed at urban conservation, the objectives from the urban approach would be a good starting point. In addition to those, several other objectives were discussed.

Again the discussion focused on a possible objective of getting more use out of current supplies. Some argued that agriculture is already efficient and questioned how we could "get more out of what we already use". The point was made that the only real way to "squeeze" more water from the system is to reduce demand, whether it is through limiting the amount of toilet flushing in L.A. or taking land out of production. Getting the most "value" out of the water was suggested as an approach. Some felt that consideration should be given to the value of water to society, not just to the crop. It was expressed that the value of water to a stream in dry years is very high, but is much lower during wet years. The same can be said for urban uses. Agriculture, it was stated, could help California get the greatest overall benefit from water resources by leaving surface water in streams in dry years and making it available for urban or environmental uses in

exchange for greater use of groundwater (recharged). Conversely, during wetter years, agriculture would take full advantage of surface water supplies and would direct water underground for later use (i.e, conjunctive use). Some agreed that conjunctive use has a lot of merit, especially if agriculture can take delivery of more wet year water. It was felt that maybe part of an approach would be to include the need for more feeder canals to provide access of surface water to areas that use groundwater. Some in the group stated that the most effective way to recharge groundwater is to over-irrigate farm lands in specific regions rather than have specified recharge basins/ponds.

To deal with conjunctive use, and the movement of water, the group felt that CALFED needed to address water transfer laws and protection of water rights. Some in the group do not feel that transfers should be relied upon extensively because of third party impacts. The draft *Model Water Transfer Act* was faulted for lack of protection for third parties. Efforts should instead focus on gaining multiple benefits from existing water.

Approaches to conservation that focus at the district level can be detrimental to the basin or watershed. Therefore, efforts should focus more on the watershed level to help protect water rights and to prevent adverse impacts to groundwater users and the environment. This achieves the objective of increasing the total value of the water. Any increase in water transfers would have to address the fear that too much north valley water would be shipped south. It was felt by some that CALFED should not sacrifice one watershed for another.

A brief discussion was held on the potential of deficit irrigation of trees. Some in the group felt that this irrigation method could result in significant water savings. A request was made to have UC researchers report to the group. This was countered by some that there is not enough known to date about this technology and that it is only appropriate for certain varieties and only for short term periods (1 or 2 years). The issue was not pursued further.

A suggestion was made to have the group focus on the broader objectives of CALFED and not to get "caught-up" in arguments about the best use of water. The CALFED principle of not shifting problems was mentioned as a reason to avoid land retirement. Land retirement, it was suggested, would shift problems to third parties. Broad objectives could include large scale, regional type projects such as Kern water banks and watershed approaches on the Stanislaus (as per Alex Hildebrand's idea). It was agreed that the work group has the ability to develop and promote ideas beyond district levels (i.e, watershed). Some in the group were pleased to hear the discussion of watershed approaches and felt that the group needed to focus on removing impediments to watershed approaches. In many instances, districts themselves are an impediment to watershed improvements.

The subject of sustainability of agriculture was discussed with reference not only to water supply, but sustainability of soils. If salts continue to be placed on agricultural soils, productivity will

ultimately decline (from salinity). Soils were mentioned as being a truly limited resource, while water renews itself (to an extent) annually. Baryohay Davidoff of DWR stated that agricultural efficiencies above 80% (on-farm) will be detrimental to soils. The ideal range is between 70% and 80%, allowing for adequate leaching of salts.

There seemed to be agreement that objectives for agricultural water use efficiency are similar to urban objectives developed earlier. Thus, the common approach to agricultural water use efficiency should meet the following objectives:

- Preserve local flexibility
- Ensure a strong water use efficiency component in the Bay-Delta solution
- Build on the progress/achievements of the agricultural MOU (AB 3616)
- Provide adequate assurance that agricultural water supplies will be used efficiently
- Include both market and regulatory mechanisms
- Emphasize market mechanisms over regulatory mechanisms
- Improve water management to achieve multiple benefits
- Look for opportunities to improve timing of releases and locations of diversions
- Encourage analysis of water use efficiency at all levels from field to valley-wide
- Offer help in the planning and financing of water use efficiency improvements
- Remove institutional barriers to efficient water use
- Plan for dry years

The next meeting is set for Wednesday, August 28, 1996, 9 a.m. to noon.