

Conservation CONNECTION

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What, Me Worry?

by Marsha Prillwitz

After several years of above average rainfall in California, some people may have filed away their old water shortage contingency plans into the far recesses of their almost obsolete metal filing cabinets. But as urban water districts update their State-required urban water management plans and as some agricultural districts face water cutbacks, even during these wet years, emphasis is once again being focused on preparedness for future dry times.

Throughout the United States, as well, the water industry is hard at work to devise strategies to overcome problems associated with water shortages. The National Drought Policy Act of 1998, Public Law 105-199, established a 15

member National Drought Policy Commission. Congress asked the Commission to provide advice and recommendations on the creation of an integrated, coordinated Federal policy designed to prepare for and respond to serious drought emergencies.

After a series of public hearings and hours of meetings, the Commission issued its report: *Preparing for Drought in the 21st Century*. The Commission developed three guiding principles of a national drought policy:

1. Favor preparedness over insurance, insurance over relief, and incentives over regulation.
2. Set research priorities based on the potential of the research results to reduce drought impacts.
3. Coordinate the delivery of federal services through cooperation and collaboration with nonfederal entities.

To read the entire report including recommendations, go to the Commission's website: www.fsa.usda.gov/drought or write: National Drought Policy Commission, USDA/FSA/AO, 1400 Independence Avenue SW, Mail Stop 0501, Washington, D.C. 20250-0501.

For a practical guide to preparing your own plan, a new publication by the National Drought Mitigation Center called *A Methodology for Drought Planning* is an excellent resource. The handbook can be found at this website: <http://enso.unl.edu/ndmc/handbook/10step/process.htm>.

For information on Reclamation Drought assistance contact Tracy Slavin at (916) 978-5214.

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“Get W.E.T.” - A BIG SPLASH

The American River Water Education Center (ARWEC) at Folsom Dam hosted a special event on Saturday, May 13, 2000. The first annual Get W.E.T.! (*Water Education Today*) event included a variety of interactive displays to teach visitors about the American River watershed and about responsible water use. It was a “big splash” and this May marked the one year anniversary of the ARWEC’s grand opening.

Approximately 250 individuals participated in the event, and most took part in a passport activity. With a passport in hand, participants visited each of eleven passport stops (*booths*). After participating in a hands-on activity or learning new information at each stop, participants got a stamp on their passport. Those who completed their passport got two rewards: a picture of the water cycle and their choice of one prize: ARWEC t-shirt, ARWEC pin, rain gauge, or a State Park pass good for the month of May. Passport stops were staffed by the U.S. Bureau of Reclamation, California Dept. of Parks and Recreation, California Dept. of Water Resources, California Dept. of Fish and Game, California Farm Water Coalition, California Native Plant Society, Sacramento Area Water Works Association, San Juan Water District, City of Roseville, and Rain Bird. “The Waters of Life”, a storytelling program by Robin Aurelius and Mary McGrath, was an additional passport stop.

Other activities available during the day included tours of Folsom Dam and the San Juan water treatment plant, a children’s art show, and a raffle for oak trees. Folsom Lake Trail Patrol staffed the first aid tent and Folsom Stage Line provided transportation to the San Juan water treatment plant.

The day was a big success, and the staff of the Water Education Center will start planning for next year’s event this winter. If you missed this year’s event, make sure you come next year and join the fun!

**For more information contact
Barbara Forderhase at (916) 989-7150.**

Hot Tip



Did you know . . .

PLANET WATER, Six Flags Marine World

On Thursday, April 13, 2000, an exciting new exhibit was unveiled at Six Flags Marine World in Vallejo. “Planet Water” resulted from a team effort between the park and the cities of Vacaville, Fairfield, Vallejo, Benica, Suisun-Solano Water Authority, and the Solano County Water Agency, as well as the US Bureau of Reclamation and the California Farm Water Coalition.

“**PLANET WATER**” focuses on teaching the importance of water management through interactive displays. One of the highlights of the exhibit is the xeroscape demonstration garden. The garden was designed by Dennis Grunstad, Landscape Architect, with the City of Vacaville.

The demonstration garden, complete with shade, benches, and a recirculating fountain, is a great spot to rest and learn more about the plants and the irrigation system. The deck, located under the existing large cedar tree, is made of recycled plastic and the serene atmosphere showcases this beautiful low water use garden.

All guests of Six Flags Marine World are welcome to stop and visit **PLANET WATER**.



Bureau of Reclamation - MID-PACIFIC REGION Water Management Planner

A requirement of the Criteria for Evaluating Water Management Plans is the 5 year Plan Revision. By way of background, section 210(b) of the RRA required the preparation and submittal of a plan. These Plans are required to be revised every 5 years. The Central Valley Project Improvement Act required Reclamation to develop criteria to evaluate Plans and to evaluate these plans by those criteria.

Reclamation developed the Water Management Planner (Planner) to assist Contractors in the preparation and implementation of their 5 year Plan revision. The Planner is designed to be used by both agricultural and urban contractors of all sizes and complexities. Included in the Planner is the Water Management Planning guidebook, Plan Formats, and a computer disk. The Guidebook is designed to provide step-by-step instructions on completing a Plan. The Plan Formats are provided, both in hard copy and on a computer disk, so that Contractors can “fill-in-the-blanks” by hand or on the computer.

Also included in the Planner is a tool for developing district water balances. To assist Contractors in preparing their water balances, Reclamation had developed a Standard District Water Balance Structure. When appropriately configured for an irrigation district, water balances help to

reveal the nature of internal water management processes as well as the adequacy and sustainability of the Contractor’s total water supply. (See page 5)

It is Reclamation’s goal to provide Contractor’s with “tools” to assist in the development and implementation of an efficient Plan. The Planner is not the complete or final authority in Water Management Planning, but just one “tool” available to the Contractors. The Water balance is another example of a “tool” for Contractors to use. Reclamation continues to look for new ways to assist Contractors in preparing their plans.



The Spotlight is on: MP-Region's Water Conservation Specialist



Bryce White

Bryce White is the newest member to the Water Conservation Team in the Mid-Pacific Regional office located in Sacramento, California. Bryce will be concentrating on the agricultural side of team activities.

During the past 10 years Bryce has grown walnuts on his small farm near Winters, California. Government service is nothing new to Bryce because during the past 20 years he was an engineer for the Department of Defense. He spent 17 years at Mare Island Naval Shipyard

and 3 years at McClellan Air Force Base. His duties ranged from machinery on nuclear submarines to environmental issues and water treatment. Bryce is a registered professional engineer in California and graduated from California State University Sacramento with a bachelor of science in mechanical engineering.

Some of Bryce's hobbies include touring the west on his Harley Davidson and investing. Bryce is very happy to be on the Water Conservation team. He has a special interest in agriculture and he's enjoying his new duties with the Bureau.

You can reach Bryce at 916 978-5208

Districts - What they are doing

Workshop Develops Better Techniques for Water Delivery

In cooperation with California Polytechnic State University, San Luis Obispo, and Tulelake Irrigation District, the Bureau of Reclamation sponsored a two-day workshop March 1-2, 2000, on water management for the Klamath Basin water users. The two sessions focused on Canal Operations and Flow Measurement. There were 35 attendees at the workshops from irrigation districts, Fish and Wildlife Service and the Bureau of Reclamation, all of which are responsible for water deliveries in the area.

Stuart Styles, Director for the Irrigation Training and Research Center at Cal Poly, was the instructor for the workshops. The workshops included morning classroom sessions and afternoon sessions in the field with hands - on experience. Through basic canal operation concepts, hydraulics, turnout operation, and an overview of flow measurement devices, water managers were able to gain a better sense of water delivery. Because water managers are responsible for delivering water efficiently, it is imperative that they stay up to date on their water delivery techniques.

The workshops were open to the public and in the future other onsite workshops could be provided with your district. Cal Poly currently provides other types of irrigation classes at their training facility. The Cal Poly teaching facility can replicate many situations found in the field, which helps water managers learn application techniques for better water delivery. Additional information concerning these classes can be accessed at the Irrigation Training and Research Centers web site at <http://www.itrc.org> , or by contacting your local Area Water Conservation Specialist with the Bureau of Reclamation.

Balancing Water Enters the Computer Age

The water balance is an important part of any water management plan. Knowing how much water enters a district, how much water is used by the crops and evaporates, and how much water leaves the district or seeps into groundwater can be used to identify what water management practices can have a positive impact on district water management. In the past, water balances have been viewed as a requirement which must be done to have an acceptable plan. Lost to many was the benefit that can be gained by using the water balance information as a tool to select which water management practices should be implemented.

It's easy to confuse "water inventory" reporting with the "water balance". The inventory is required while the water balance is not, but much of the data in the water inventory copies directly into the water balance. If you do an inventory as required, it's just a little more data entry to complete the water balance.

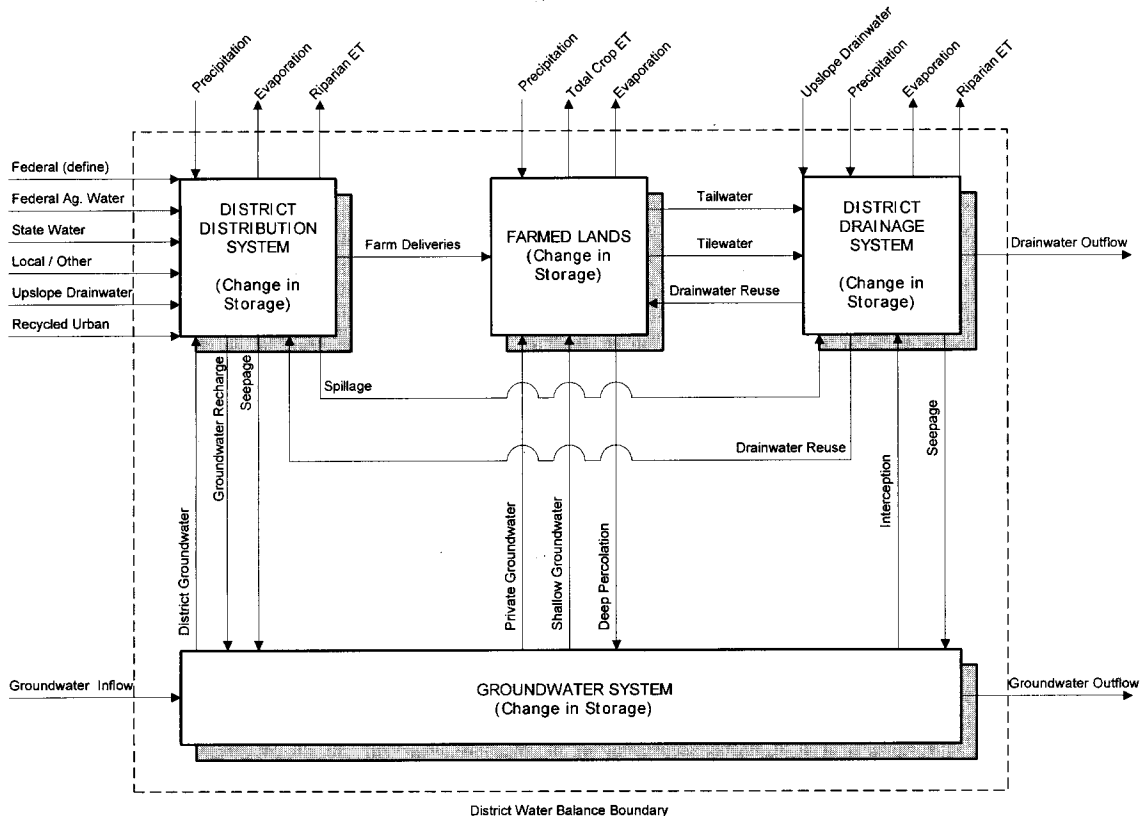
The water balance is the result of efforts by consultants, university experts, and water district and agency representatives. The consensus was that a district water balance should be separated into four cells or water accounting centers which would include water inputs and outputs. Boxes were created for the District Distribution System, Cropped lands, District Drainage System and Groundwater System. (See Figure)

The next step was for Reclamation staff to computerize the process which was done with the use of an Excel Spreadsheet. The spreadsheet includes the inputs and outputs for each cell. Each cell solves for an unknown, factor which was not measured. For instance, the unknown for the Cropped Lands cell is deep percolation from the field. The spreadsheets were then tied to each other so that a factor in one cell could impact factors in that cell and others. For instance, if a district's distribution system is automated, spillage into the drainage system may be reduced which could reduce the drain water outflow.

The water balance input and output tables have been expanded. Factors like shallow groundwater can now be input for districts with shallow groundwater tables that contribute to crop water use. These additions have been made for completeness and may help a district better understand their water balance.

The Mid-Pacific Region's water conservation office hopes that this tool simplifies the water balance. The water balance is not required as part of a district water management plan, but it is provided to assist districts in determining appropriate water management improvements. It can also be useful to determine district water needs.

Standard Agricultural District Water Balance Structure



Calendar of Events . . .

Water Education Foundation's
Sierra Watershed Tour
September 13-15, 2000

For more information call (916) 444-6240

21st Annual International Irrigation Show
November 12-14, 2000

Phoenix Civic Plaza
Phoenix, Arizona

For more information call (703) 573-3551

Water Education Foundation's Northern California
Water Facilities & Fisheries Tour

October 4-6, 2000

For more information call (916) 444-6240



Mark Your Calendars!

American Water Works Association Annual
Conference and Exposition

"New Horizons in Drinking Water"
June 17-21, 2001

Call for papers: Submission deadline is
September 15, 2000

Washington Convention Center
Washington, D.C.

For more information call (303) 347-6210

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Water Conservation Center
Bureau of Reclamation, MP-410
2800 Cottage Way
Sacramento, CA 95825-1898

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