



# UNDERGROUND

Summer 2001

## AGWA SUBMITS RESEARCH SUGGESTIONS TO AwwaRF

AGWA recently submitted research suggestions to the American Water Works Association Research Foundation (AwwaRF) in an effort to have the organization commit resources to investigate issues of concern to groundwater agencies.

Suggestions included effective public and medical community outreach for indirect potable reuse

projects, assessment of groundwater vulnerability to industrial chemicals, strategies for water system operation in an energy-deficient environment, public education to improve confidence in the safety of tap water, and conjunctive use and groundwater basin guide prototype.

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*(Continued on next page)*

## WHAT'S INSIDE

- [AGWA Submits Research Suggestions to AwwaRF](#)
- [ACWA Questions CPUC Draft Decision Defining “Essential Services”](#)
- [Funding for the Groundwater Replenishment System to Go to Conference Committee](#)
- [Watermaster Meets With Judge Regarding Glendale Dumping Issue](#)
- [Conservation District Takes Steps to Preserve Local Water](#)
- [Eastern Municipal Water District Announces General Manager’s Retirement; New General Manager Announced](#)
- [Orange County Water District Contributes \\$25,000 to Recovery Plan for Santa Ana River Sucker Fish](#)
- [Kern County Water Agency’s Urban Well Program Moving Forward](#)
- [Hot Weather Pushes EMWD Customers to New Record Water Use](#)
- [Orange County Water District Receives \\$118,000 Research Grant](#)

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[PRINT VERSION](#)

## **ACWA QUESTIONS CPUC DRAFT DECISION DEFINING “ESSENTIAL SERVICES”**

A draft decision by a California Public Utilities Commission (CPUC) official to exclude water agencies in its definition of “essential services,” was roundly criticized recently by the state’s leading association of water providers.

The Association of California Water Agencies (ACWA), in comments filed Aug. 28 with the CPUC in a proceeding to determine which non-residential customers will get blackout exemptions based on public health and safety concerns, took issue with the draft decision and the consultant’s report on which it was based.

Nearly 10,000 applications were received from owners of facilities throughout the state, including several AGWA member agencies, which are concerned about the threat to public health that could result from water service disruptions from blackouts. A consultant screened the applications and the result was incorporated into the draft decision issued by Commissioner Carl Wood on Aug. 17.

“Throughout this process we have been astounded that water service historically has not been viewed as essential and included more fully among the basic exemptions that have existed since 1980,” said Dan Smith, ACWA’s director of regulatory affairs. “We fear now that this error has been compounded and perpetuated.”

Indeed, ACWA asked that the CPUC establish a new exemption category for water service and exclude from the exemption only those water agencies that are truly prepared to weather a prolonged power outage.

“It is prudent and appropriate that a new essential services classification be added for water supply agencies much the same as is now provided for fire, police and prison services, hospitals, communications facilities and other,” Smith said.

The CPUC draft decision screened out all water agencies based on the consultant’s conclusions that they “appear to be prepared” for outages. “We acknowledge that many water systems are prepared and that most take steps to be prepared as much as they can for any event that may jeopardize their ability to maintain service,” Smith said. Those presumptive preparations include installation of backflow prevention devices to prevent contamination of water systems; existing provisions to restore power and, therefore, water service in the event of a fire or other emergency; and the availability of back-up power generation.

“However, we do not believe the summaries of the anecdotal survey included in the consultant’s report validates the conclusion that all water suppliers are prepared for outages. And it certainly does not mean they do not provide an essential service and that they cannot be harmed by exposure to rotating outages. Many water systems have backup generation, but not all do and it should not be used as an excuse for the failure to acknowledge that water is an essential service.”

In challenging the consultant’s conclusions, ACWA cited the following specific examples:

- Backflow prevention devices may not adequately safeguard public health during outages lasting an hour or more. Once contaminated, a public water supply may take days to be restored to acceptable drinking water quality standards.
- It is unproven whether a power supplier can restore power as quickly as it may be needed to provide water needed to fight a fire or other emergency situations, and such conjecture provides an unacceptable level of public risk.
- CPUC staff surveys provided anecdotal information that some water suppliers do have backup power generation. But not all are so equipped. Even the availability of such equipment doesn’t guarantee the ability to safely operate water systems for extended periods.

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## FUNDING FOR THE GROUNDWATER REPLENISHMENT SYSTEM TO GO TO CONFERENCE COMMITTEE

The United States House of Representatives Energy and Water Appropriations Subcommittee recently approved funding for Orange County's Groundwater Replenishment (GWR) System, a joint project between AGWA member agency Orange County Water District and the Orange County Sanitation District. Project funding was approved for \$3 million – a markup from the \$1.8 million originally included in the President's budget. However, the Senate last month approved \$1.8 million for the project, which now means the funding will be discussed in the Conference Committee.

“Hopefully the results of the Conference Committee will concur with the markup made by the House Subcommittee,” said Irv Pickler, President of the Joint Cooperative Committee for the Groundwater Replenishment System. “This is an important project for Southern California and additional federal funding will help the Groundwater Replenishment System better drought-proof the area in the future.”

In the past, the GWR System project has been appropriated \$37 million from the California State Water Bond and has received over \$700,000 from the California Energy Commission, \$500,000 from the EPA and \$3.5 million from the Bureau of Reclamation.

Full design and preliminary construction have been approved for Phase I of the GWR System at an expected cost of \$352 million at its completion in 2005. Phase I includes construction of a pipeline along the Santa Ana River, a water purification plant and expansion of a seawater intrusion barrier. Initial implementation of the water purification plant will provide 70,000 acre-feet per year of a new, drought-proof water supply for Orange County. The GWR System will be located on the joint water campus of the Orange County Water District and the Orange County Sanitation District in Fountain Valley, Calif.

The GWR System will provide Orange County

with a new source of purified water. The GWR System will take highly treated sewage from the Orange County Sanitation District, currently sent to the ocean, and purify it to near-distilled water quality through 100 percent microfiltration, reverse osmosis and ultraviolet disinfection technologies. The water will then be injected into an underground seawater intrusion barrier and also percolated into the county's groundwater basin by the Orange County Water District. Because the GWR System requires only half the electric power of importing water from Northern California, the GWR System not only improves the quality of our local water supply, but also saves electric energy.

[PRINT VERSION](#)

## WATERMASTER MEETS WITH JUDGE REGARDING GLENDALE DUMPING ISSUE

On Aug. 17, AGWA member and San Fernando Valley Watermaster Mel Blevins attended a meeting with Los Angeles Superior Court Judge Susan Bryant-Deason at the Los Angeles Superior Court to discuss the ongoing crisis involving the illegal discharge of groundwater in Glendale. Also in attendance were others from the Watermaster's office, members of the U.S. Environmental Protection Agency and representatives from the City of Glendale, City of Los Angeles and Lockheed.

As discussed in previous editions of *Notes from the Underground*, officials from the City of Glendale are concerned over the amount of chromium 6 in their groundwater supply. Although the water meets the current state standard of 50 parts per billion (ppb), officials are concerned since it does not meet the proposed tougher limit of 0.2 ppb. The water contains chromium 6 levels as high as 16 ppb, according to Glendale water services administrator Donald R. Froelich.

Due to these concerns, the City of Glendale has been discharging a large quantity of treated groundwater. In fact, since the beginning of operations on Sept. 26, 2000, approximately 550 acre-feet per month, or a total of 7,000 acre-feet

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through August 2001, have been discharged into the Los Angeles River.

Glendale's City Council has directed them not to deliver water with chromium 6 higher than 1 ppb. The council has the support of Senator Barbara Boxer and other elected officials on this issue. However, according to Blevins, the Watermaster may be forced to legally stop Glendale's waste of water through the Los Angeles Superior Court.

During the Aug. 17 meeting, Judge Bryant-Deason stated that Glendale is required to accept the treated water into the City's drinking water system. Glendale argued, however, that because no specific, separate standard for chromium 6 exists, its city council has not wanted to accept the treated groundwater. Without specific chromium 6 standards, Glendale is concerned that it cannot guarantee public safety.

According to Blevins, Judge Bryant-Deason did not feel that there was confusion among the parties present as to applicable standards and acceptable levels of chromium 6. In fact, she stated that Glendale's position seems to be driven by "politics" and people "outside" of the room. She further noted that in the event of a conflict between the parties, Glendale may need to petition the Federal Court; and the Judge's decision—not the EPA's—constitutes the final determination regarding the Consent Decree related to the treatment plant.

During the meeting, Blevins noted that the Watermaster is not attempting to dictate a specific end-use for the water to Glendale; but that whatever Glendale chooses to do, its use must not result in waste. Glendale's current "split-schedule" would result in enough water waste annually to fill the courtroom over 15,000 times, Blevins said in the meeting.

Blevins will be meeting with representatives from the City of Glendale on Aug. 30 to provide guidance on how to resolve the "waste of groundwater by Glendale" and the requirements of the Consent Decree of the Federal Court. According to Blevins, he believes that Glendale can shut down the Glendale Operating Unit for the next four to five

years and not waste water or violate the requirements of the Consent Decree.

Stay tuned to *Notes from the Underground* for continuing developments on this story.

### [PRINT VERSION](#)

## **CONSERVATION DISTRICT TAKES STEPS TO PRESERVE LOCAL WATER**

In an effort to keep its water available to users in the future, AGWA member agency San Bernardino Valley Water Conservation District has filed an Application to Appropriate Water by Permit to the California State Water Resources Control Board. If the Conservation District's position is upheld by the State Board, high quality native water from the Santa Ana River and Mill Creek will continue to be used for groundwater recharge, groundwater storage, groundwater quality enhancement, and environmental enhancement.

Currently, water in the Santa Ana River and Mill Creek is used by agencies with existing water rights. The Conservation District's application does not seek to change those existing rights, only to continue using storm flows and other non-used water. The Conservation District's application seeks to confirm its 90-year history of beneficial use by conserving the area's most pristine water.

The Conservation District was formed in 1932 following a vote of the people in San Bernardino County under the authority of the Water Conservation Act of 1931. Soon thereafter, the Conservation District was given the role and property of a private group, the Water Conservation Association, to replenish the water supply in the Bunker Hill Groundwater Basin, a huge underground basin capable of storing more than 5 million acre-feet of water. The association had been replenishing the basin since 1911.

Similarly, the Conservation District began diverting Mill Creek water for groundwater recharge in 1935, assuming that role from the East Lugonia

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Mutual Water Company. The Conservation District has diverted and recharged as much as 80,000 acre-feet of Santa Ana River water and 24,000 acre-feet in Mill Creek in one year. According to the district, saving this native water by storing it safely underground assures its use for a later day without evaporation or degradation of quality from drainage, which occurs with surface storage.

The State Board will review the Conservation District's application, conduct a hearing related to the quantity of water in the Santa Ana River stream system, then conduct a second hearing on the application itself. The hearings will also include consideration of any other applications for right to appropriate water from the Santa Ana River system.

[PRINT VERSION](#)

## **EASTERN MUNICIPAL WATER DISTRICT ANNOUNCES GENERAL MANAGER'S RETIREMENT; NEW GENERAL MANAGER ANNOUNCED**

AGWA member agency Eastern Municipal Water District (EMWD) has announced that its general manager, John B. Brudin, will retire this fall. His successor will be Anthony J. ("Tony") Pack, who has served as the district's deputy general manager since 1995.

Brudin will step down as general manager effective Sept. 4, after which he will remain with the district as an advisor to Pack on fiscal and administrative matters. Brudin's retirement will be effective Dec. 31.

Brudin joined EMWD in 1993 as deputy manager, and became the district's general manager in 1994. He brought to EMWD more than 40 years of engineering and business management experience.

Pack joined EMWD as a project coordinator in 1990. In 1995, he was appointed deputy general manager of operations and administration. This

branch includes more than 350 employees – about 75 percent of EMWD's total work force. He has also served as assistant general manager in charge of administration and finance.

From March 1999 to March 2001, Pack served a two-year term as president of the California Municipal Utilities Association, a statewide association of publicly owned utilities.

[PRINT VERSION](#)

## **ORANGE COUNTY WATER DISTRICT CONTRIBUTES \$25,000 TO RECOVERY PLAN FOR SANTA ANA RIVER SUCKER FISH**

The Board of Directors of AGWA member agency Orange County Water District (OCWD) announced its contribution of \$25,000 to continue the Santa Ana Sucker Conservation Program for a second year in a row. The study is sponsored by the Santa Ana Watershed Project Authority, whose member agencies include OCWD and four other water districts in Riverside and San Bernardino counties. OCWD, in conjunction with the U.S. Fish and Wildlife Service, initiated the study in September 2000 to begin implementing strategies to increase the sucker's population.

The Santa Ana sucker fish (*Catostomus santaanae*) is listed as a threatened species, although the cause of its decline has not been scientifically identified. The sucker fish is one of three original fish occurring in the Santa Ana River, along with the arroyo chub and the speckled dace.

A preliminary study conducted by OCWD, the Orange County Flood Control District and the Los Angeles County Public Works Department in the fall of 1998 found that the quality of river water did not appear to be a factor in the Santa Ana sucker's decline. Instead, non-native fish and a lack of breeding areas seemed to be not only probable causes of the fish's decline but also the most promising avenues for research into restoring the fish.

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Currently, the study is concentrating on the migration of the sucker fish. A tag is being placed on fish to track movement along the river and to learn about the habitat it originating in and whether it migrates upstream or downstream. The overall scope of the study includes the reproduction and migration patterns of the fish, population size and structure, as well as potential introduction sites along the river and other re-establishment issues in order to help maintain some of California's natural resources – like the sucker fish.

The sucker is a four- to five-inch-long bottom feeder with silver and dark blotched coloring. It has a life span of three years and can be found in the Los Angeles, San Gabriel and Santa Ana Rivers as well as in streams feeding into those rivers. It lives primarily on algae and occasional insects.

The study will cost approximately \$125,000 per year and will initially last five years. OCWD will contribute up to \$25,000 each year. Federal and local agencies and developers with projects affecting the flow of the Santa Ana River will also be approached to help fund the recovery effort. Possible agencies include San Bernardino County Flood Control District, Riverside County Flood Control & Water Conservation District, City of Corona and the Orange County Flood Control District.

OCWD undertook a similar effort in the early 1980s to address the endangered least Bell's vireo songbird, whose numbers had dropped to approximately 18 breeding pairs in the area of Prado Dam. As a result of OCWD's efforts, parasitic cowbirds were identified as the major cause of the decline of the vireo. By counteracting cowbird activities, the vireo population has now increased to more than 230 breeding pairs in the area behind Prado Dam in Riverside County. OCWD hopes a similarly successful recovery plan can be developed in the Santa Ana River for the Santa Ana sucker fish.

[PRINT VERSION](#)

## KERN COUNTY WATER AGENCY'S URBAN WELL PROGRAM MOVING FORWARD

AGWA member agency Kern County Water Agency (KCWA) has announced that its Urban Bakersfield Well Development Program is in full swing in an effort to have the wells online by the end of this year.

The program will provide additional water for the Henry C. Garnett Water Purification Plant and enhance potential exchanges with other districts. KCWA staff is also working on plans and specifications for pumps, motors and pipelines for the newly constructed wells.

Work on the wells continues, with contractors completing work on drilling and casing the fourth well. The contractor's pump crews have also completed pump testing the first well. When the pump tests are complete, the contractor will finish the earthwork for the well pad and construct concrete pump bases.

[PRINT VERSION](#)

## HOT WEATHER PUSHES EMWD CUSTOMERS TO NEW RECORD WATER USE

AGWA member agency Eastern Municipal Water District (EMWD)'s customers have set a new, one-day record for water use in the Inland Empire. On Aug. 9, its customers used a whopping 146.5 million gallons of water, beating the previous record of 139 million gallons a year before.

"We have been very conscious of making sure we have both a greater water supply and the means to get that water to our customers," said Khos Ghaderi, EMWD's director of water operations. "So this year, we've increased our ability to pump water throughout our service area, and we've made some additional connections with other water agencies."

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Reflecting EMWD's conservation policy, each year some 300 customers take advantage of EMWD's free home water surveys, which help customers reduce their water bills. Over the long run, EMWD has also sponsored free landscaping seminars and rebates or exchanges of ultra-low-flush toilets, as well as other conservation assistance.

[PRINT VERSION](#)

## ORANGE COUNTY WATER DISTRICT RECEIVES \$118,000 RESEARCH GRANT

AGWA member agency Orange County Water District (OCWD) was recently awarded a \$118,000 grant from the United States Environmental Protection Agency (U.S. EPA) to conduct research on low-molecular-weight trace organic compounds – or compounds with a very low detection level – commonly found in wastewater environments. During 2001, the District's Water Resources & Technology Department will focus on two specific research projects.

Numerous state of the art ultraviolet (UV) technologies will be assessed for their ability to remove the low-molecular-weight trace compounds such as methyl tertiary-butyl ether, otherwise known as MTBE. Specific objectives to be addressed include reviewing the quantity of UV exposure needed in the design and operation of future water purification plants.

Reverse osmosis (RO) membranes will also be evaluated for their ability to remove similar compounds. Since the development of the RO membrane, numerous improvements have been made in the design and use of new synthetic membrane materials. The treatment of low-molecular-weight trace compounds by RO membranes is particularly challenging due to their very small size. The ability of RO membranes to remove these compounds will be evaluated using a rapid and inexpensive testing protocol currently in development by OCWD's Technology Department.

## Water Drops....

- On July 26, Governor Gray Davis signed the \$101 billion 2001-02 budget bill, which included \$10.5 million for the Governor's Drought Advisory Panel; \$81 million for CALFED; \$21.3 million for water quality programs; \$18.4 million for key river parkways; \$13.5 million for wetlands projects; \$524.8 million for park projects and \$443.4 million for water projects from Propositions 12 and 13.
- On July 19, the California State Water Resources Control Board approved a National Pollutant Discharge Elimination System (NPDES) General Permit for the discharge of aquatic herbicides. Applicants can receive immediate coverage under this permit by submitting a Notice of Intent (NOI) and \$400 fee. Contact your regional water quality control board for application assistance.
- The recently-passed appropriations bill for Veterans Affairs, Housing and Urban Development and Independent Agencies was recently amended by both the House and Senate to contain language on a federal drinking water standard for arsenic. While the House voted 218-189 in favor of language to prohibit EPA from setting any arsenic standard higher than 10 parts per billion, the Senate bill moved in a different, more moderate direction. An amendment by Senator Barbara Boxer, D-CA, was adopted by a vote of 97 to 1, and the bill is awaiting action before a House-Senate conference committee.
- A bill to outlaw the sale of "killer algae," a popular aquarium seaweed that can devastate marine ecosystems, passed the state Senate on Monday by a unanimous vote. The algae, *Caulerpa taxifolia*, became the target of eradication efforts when it was found last year in Huntington Harbour and on the northern San Diego County coast. The algae can take over marine ecosystems, destroying habitat that is vital for fish and other sea creatures. The bill must return to the Assembly and be signed by the governor to become law.

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- The *San Francisco Chronicle* analyzed data from the Water Resources Control Board and the Department of Health Services and found that MTBE leaks from nearly 1,200 underground tank sites threaten the drinking water supply of millions of Californians. The data do not include tens of thousands of private wells in California and hundreds of thousands nationwide. State records show the 1,189 underground tank sites leaking MTBE are within 1,000 feet of public supply wells or on vulnerable drinking water aquifers. An additional 1,729 leaking tank sites farther away from drinking water wells also could be a threat.

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The United States House of Representatives Energy and Water Appropriations Subcommittee recently approved funding for Orange County's Groundwater Replenishment (GWR) System, a joint project between AGWA member agency Orange County Water District and the Orange County Sanitation District. Project funding was approved for \$3 million – a markup from the \$1.8 million originally included in the President's budget. However, the Senate last month approved \$1.8 million for the project, which now means the funding will be discussed in the Conference Committee.

“Hopefully the results of the Conference Committee will concur with the markup made by the House Subcommittee,” said Irv Pickler, President of the Joint Cooperative Committee for the Groundwater Replenishment System. “This is an important project for Southern California and additional federal funding will help the Groundwater Replenishment System better drought-proof the area in the future.”

In the past, the GWR System project has been appropriated \$37 million from the California State Water Bond and has received over \$700,000 from the California Energy Commission, \$500,000 from the EPA and \$3.5 million from the Bureau of Reclamation.

Full design and preliminary construction have been approved for Phase I of the GWR System at an expected cost of \$352 million at its completion in 2005. Phase I includes construction of a pipeline along the Santa Ana River, a water purification plant and expansion of a seawater intrusion barrier. Initial implementation of the water purification plant will provide 70,000 acre-feet per year of a new, drought-proof water supply for Orange County. The GWR System will be located on the joint water campus of the Orange County Water District and the Orange County Sanitation District in Fountain Valley, Calif.

The GWR System will provide Orange County with a new source of purified water. The GWR System will take highly treated sewage from the Orange County Sanitation District, currently sent to the ocean, and purify it to near-distilled water quality through 100 percent microfiltration, reverse osmosis and ultraviolet disinfection technologies. The water will then be injected into an underground seawater intrusion barrier and also percolated into the county's groundwater basin by the Orange County Water District. Because the GWR System requires only half the electric power of importing water from Northern California, the GWR System not only improves the quality of our local water supply, but also saves electric energy.

## **WATERMASTER MEETS WITH JUDGE REGARDING GLENDALE DUMPING ISSUE**

On Aug. 17, AGWA member and San Fernando Valley Watermaster Mel Blevins attended a meeting with Los Angeles Superior Court Judge Susan Bryant-Deason at the Los Angeles Superior Court to discuss the ongoing crisis involving the illegal discharge of groundwater in Glendale. Also in attendance were others from the Watermaster's office, members of the U.S. Environmental Protection Agency and representatives from the City of Glendale, City of Los Angeles and Lockheed.

As discussed in previous editions of *Notes from the Underground*, officials from the City of Glendale are concerned over the amount of chromium 6 in their groundwater supply. Although the water meets the current state standard of 50 parts per billion (ppb), officials are concerned since it does not meet the proposed tougher limit of 0.2 ppb. The water contains chromium 6 levels as high as 16 ppb, according to Glendale water services administrator Donald R. Froelich.

Due to these concerns, the City of Glendale has been discharging a large quantity of treated groundwater. In fact, since the beginning of operations on Sept. 26, 2000, approximately 550 acre-feet per month, or a total of 7,000 acre-feet through August 2001, have been discharged into the Los Angeles River.

Glendale's City Council has directed them not to deliver water with chromium 6 higher than 1 ppb. The council has the support of Senator Barbara Boxer and other elected officials on this issue. However, according to Blevins, the Watermaster may be forced to legally stop Glendale's waste of water through the Los Angeles Superior Court.

During the Aug. 17 meeting, Judge Bryant-Deason stated that Glendale is required to accept the treated water into the City's drinking water system. Glendale argued, however, that because no specific, separate standard for chromium 6 exists, its city council has not wanted to accept the treated groundwater. Without specific chromium 6 standards, Glendale is concerned that it cannot guarantee public safety.

According to Blevins, Judge Bryant-Deason did not feel that there was confusion among the parties present as to applicable standards and acceptable levels of chromium 6. In fact, she stated that Glendale's position seems to be driven by "politics" and people "outside" of the room. She further noted that in the event of a conflict between the parties, Glendale may need to petition the Federal Court; and the Judge's decision—not the EPA's—constitutes the final determination regarding the Consent Decree related to the treatment plant.

During the meeting, Blevins noted that the Watermaster is not attempting to dictate a specific end-use for the water to Glendale; but that whatever Glendale chooses to do, its use must not result in waste. Glendale's current "split-schedule" would result in enough water waste annually to fill the courtroom over 15,000 times, Blevins said in the meeting.

Blevins will be meeting with representatives from the City of Glendale on Aug. 30 to provide guidance on how to resolve the "waste of groundwater by Glendale" and the requirements of the Consent Decree of the Federal Court. According to Blevins, he believes that Glendale can shut down the Glendale Operating Unit for the next four to five years and not waste water or violate the requirements of the Consent Decree.

Stay tuned to *Notes from the Underground* for continuing developments on this story.

## **CONSERVATION DISTRICT TAKES STEPS TO PRESERVE LOCAL WATER**

In an effort to keep its water available to users in the future, AGWA member agency San Bernardino Valley Water Conservation District has filed an Application to Appropriate Water by Permit to the California State Water Resources Control Board. If the Conservation District's position is upheld by the State Board, high quality native water from the Santa Ana River and Mill Creek will continue to be used for groundwater recharge, groundwater storage, groundwater quality enhancement, and environmental enhancement.

Currently, water in the Santa Ana River and Mill Creek is used by agencies with existing water rights. The Conservation District's application does not seek to change those existing rights, only to continue using storm flows and other non-used water. The Conservation District's application seeks to confirm its 90-year history of beneficial use by conserving the area's most pristine water.

The Conservation District was formed in 1932 following a vote of the people in San Bernardino County under the authority of the Water Conservation Act of 1931. Soon thereafter, the Conservation District was given the role and property of a private group, the Water Conservation Association, to replenish the water supply in the Bunker Hill Groundwater Basin, a huge underground basin capable of storing more than 5 million acre-feet of water. The association had been replenishing the basin since 1911.

Similarly, the Conservation District began diverting Mill Creek water for groundwater recharge in 1935, assuming that role from the East Lugonia Mutual Water Company. The Conservation District has diverted and recharged as much as 80,000 acre-feet of Santa Ana River water and 24,000 acre-feet in Mill Creek in one year. According to the district, saving this native water by storing it safely underground assures its use for a later day without evaporation or degradation of quality from drainage, which occurs with surface storage.

The State Board will review the Conservation District's application, conduct a hearing related to the quantity of water in the Santa Ana River stream system, then conduct a second hearing on the application itself. The hearings will also include consideration of any other applications for right to appropriate water from the Santa Ana River system.

## **EASTERN MUNICIPAL WATER DISTRICT ANNOUNCES GENERAL MANAGER'S RETIREMENT; NEW GENERAL MANAGER ANNOUNCED**

AGWA member agency Eastern Municipal Water District (EMWD) has announced that its general manager, John B. Brudin, will retire this fall. His successor will be Anthony J. ("Tony") Pack, who has served as the district's deputy general manager since 1995.

Brudin will step down as general manager effective Sept. 4, after which he will remain with the district as an advisor to Pack on fiscal and administrative matters. Brudin's retirement will be effective Dec. 31.

Brudin joined EMWD in 1993 as deputy manager, and became the district's general manager in 1994. He brought to EMWD more than 40 years of engineering and business management experience.

Pack joined EMWD as a project coordinator in 1990. In 1995, he was appointed deputy general manager of operations and administration. This branch includes more than 350 employees – about 75 percent of EMWD's total work force. He has also served as assistant general manager in charge of administration and finance.

From March 1999 to March 2001, Pack served a two-year term as president of the California Municipal Utilities Association, a statewide association of publicly owned utilities.

## **ORANGE COUNTY WATER DISTRICT CONTRIBUTES \$25,000 TO RECOVERY PLAN FOR SANTA ANA RIVER SUCKER FISH**

The Board of Directors of AGWA member agency Orange County Water District (OCWD) announced its contribution of \$25,000 to continue the Santa Ana Sucker Conservation Program for a second year in a row. The study is sponsored by the Santa Ana Watershed Project Authority, whose member agencies include OCWD and four other water districts in Riverside and San Bernardino counties. OCWD, in conjunction with the U.S. Fish and Wildlife Service, initiated the study in September 2000 to begin implementing strategies to increase the sucker's population.

The Santa Ana sucker fish (*Catostomus santaanae*) is listed as a threatened species, although the cause of its decline has not been scientifically identified. The sucker fish is one of three original fish occurring in the Santa Ana River, along with the arroyo chub and the speckled dace.

A preliminary study conducted by OCWD, the Orange County Flood Control District and the Los Angeles County Public Works Department in the fall of 1998 found that the quality of river water did not appear to be a factor in the Santa Ana sucker's decline. Instead, non-native fish and a lack of breeding areas seemed to be not only probable causes of the fish's decline but also the most promising avenues for research into restoring the fish.

Currently, the study is concentrating on the migration of the sucker fish. A tag is being placed on fish to track movement along the river and to learn about the habitat it originating in and whether it migrates upstream or downstream. The overall scope of the study includes the reproduction and migration patterns of the fish, population size and structure, as well as potential introduction sites along the river and other re-establishment issues in order to help maintain some of California's natural resources – like the sucker fish.

The sucker is a four- to five-inch-long bottom feeder with silver and dark blotched coloring. It has a life span of three years and can be found in the Los Angeles, San Gabriel and Santa Ana Rivers as well as in streams feeding into those rivers. It lives primarily on algae and occasional insects.

The study will cost approximately \$125,000 per year and will initially last five years. OCWD will contribute up to \$25,000 each year. Federal and local agencies and developers with projects affecting the flow of the Santa Ana River will also be approached to help fund the recovery effort. Possible agencies include San Bernardino County Flood Control District, Riverside County Flood Control & Water Conservation District, City of Corona and the Orange County Flood Control District.

OCWD undertook a similar effort in the early 1980s to address the endangered least Bell's vireo songbird, whose numbers had dropped to approximately 18 breeding pairs in the area of Prado Dam. As a result of OCWD's efforts, parasitic cowbirds were identified as the major cause of the decline of the vireo. By counteracting cowbird activities, the vireo population has now increased to more than 230 breeding pairs in the area behind Prado Dam in Riverside County. OCWD hopes a similarly successful recovery plan can be developed in the Santa Ana River for the Santa Ana sucker fish.

## **KERN COUNTY WATER AGENCY'S URBAN WELL PROGRAM MOVING FORWARD**

AGWA member agency Kern County Water Agency (KCWA) has announced that its Urban Bakersfield Well Development Program is in full swing in an effort to have the wells online by the end of this year.

The program will provide additional water for the Henry C. Garnett Water Purification Plant and enhance potential exchanges with other districts. KCWA staff is also working on plans and specifications for pumps, motors and pipelines for the newly constructed wells.

Work on the wells continues, with contractors completing work on drilling and casing the fourth well. The contractor's pump crews have also completed pump testing the first well. When the pump tests are complete, the contractor will finish the earthwork for the well pad and construct concrete pump bases.

## **HOT WEATHER PUSHES EMWD CUSTOMERS TO NEW RECORD WATER USE**

AGWA member agency Eastern Municipal Water District (EMWD)'s customers have set a new, one-day record for water use in the Inland Empire. On Aug. 9, its customers used a whopping 146.5 million gallons of water, beating the previous record of 139 million gallons a year before.

"We have been very conscious of making sure we have both a greater water supply and the means to get that water to our customers," said Khos Ghaderi, EMWD's director of water operations. "So this year, we've increased our ability to pump water throughout our service area, and we've made some additional connections with other water agencies."

Reflecting EMWD's conservation policy, each year some 300 customers take advantage of EMWD's free home water surveys, which help customers reduce their water bills. Over the long run, EMWD has also sponsored free landscaping seminars and rebates or exchanges of ultra-low-flush toilets, as well as other conservation assistance.

## ORANGE COUNTY WATER DISTRICT RECEIVES \$118,000 RESEARCH GRANT

AGWA member agency Orange County Water District (OCWD) was recently awarded a \$118,000 grant from the United States Environmental Protection Agency (U.S. EPA) to conduct research on low-molecular-weight trace organic compounds – or compounds with a very low detection level – commonly found in wastewater environments. During 2001, the District's Water Resources & Technology Department will focus on two specific research projects.

Numerous state of the art ultraviolet (UV) technologies will be assessed for their ability to remove the low-molecular-weight trace compounds such as methyl tertiary-butyl ether, otherwise known as MTBE. Specific objectives to be addressed include reviewing the quantity of UV exposure needed in the design and operation of future water purification plants.

Reverse osmosis (RO) membranes will also be evaluated for their ability to remove similar compounds. Since the development of the RO membrane, numerous improvements have been made in the design and use of new synthetic membrane materials. The treatment of low-molecular-weight trace compounds by RO membranes is particularly challenging due to their very small size. The ability of RO membranes to remove these compounds will be evaluated using a rapid and inexpensive testing protocol currently in development by OCWD's Technology Department.

### Water Drops....

- On July 26, Governor Gray Davis signed the \$101 billion 2001-02 budget bill, which included \$10.5 million for the Governor's Drought Advisory Panel; \$81 million for CALFED; \$21.3 million for water quality programs; \$18.4 million for key river parkways; \$13.5 million for wetlands projects; \$524.8 million for park projects and \$443.4 million for water projects from Propositions 12 and 13.
- On July 19, the California State Water Resources Control Board approved a National Pollutant Discharge Elimination System (NPDES) General Permit for the discharge of aquatic herbicides. Applicants can receive immediate coverage under this permit by submitting a Notice of Intent (NOI) and \$400 fee. Contact your regional water quality control board for application assistance.
- The recently-passed appropriations bill for Veterans Affairs, Housing and Urban Development and Independent Agencies was recently amended by both the House and Senate to contain language on a federal drinking water standard for arsenic. While the House voted 218-189 in favor of language to prohibit EPA from setting any arsenic standard higher than 10 parts per billion, the Senate bill moved in a different, more moderate direction. An amendment by Senator Barbara Boxer, D-CA, was adopted by a vote of 97 to 1, and the bill is awaiting action before a House-Senate conference committee.
- A bill to outlaw the sale of "killer algae," a popular aquarium seaweed that can devastate marine ecosystems, passed the state Senate on Monday by a unanimous vote. The algae, *Caulerpa taxifolia*, became the target of eradication efforts when it was found last year in Huntington Harbour and on the northern San Diego County coast. The algae can take over marine ecosystems, destroying habitat that is vital for fish and other sea creatures. The bill must return to the Assembly and be signed by the governor to become law.
- The *San Francisco Chronicle* analyzed data from the Water Resources Control Board and the Department of Health Services and found that MTBE leaks from nearly 1,200 underground tank sites threaten the drinking water supply of millions of Californians. The data do not include tens of thousands of private wells in California and hundreds of thousands nationwide. State records show

(Continued on next page)

NEXT

the 1,189 underground tank sites leaking MTBE are within 1,000 feet of public supply wells or on vulnerable drinking water aquifers. An additional 1,729 leaking tank sites farther away from drinking water wells also could be a threat.

[BACK](#)