

## ***In Memory of David Keith Todd***

David Keith Todd, one of the founders of modern groundwater science, died in April after a brief struggle with leukemia. Todd may be best known for his textbook, *Groundwater Hydrology*, first published in 1959 when no other hydrology textbooks were in print. It quickly became the standard textbook used by some 52 American universities, published in several international editions, and translated into six languages. Subsequent editions were published in 1980 and 2005.

For more than 30 years, Todd was a professor in the civil engineering department at the University of California, Berkeley. His research addressed the real-world problems of understanding and managing groundwater resources, with particular focus on seawater intrusion and artificial recharge. Todd eventually expanded his work to include groundwater contamination, monitoring, remediation, and protection.

In 1980, Todd retired from UC-Berkeley to found Todd Engineers, a groundwater consulting firm. There, he addressed water management issues in California and worldwide, championing the idea of perennial yield of groundwater basins to promote wise management and protection of groundwater.

Todd was active in consulting projects up to the time of his hospitalization, most recently completing a multi-year project optimizing groundwater management for the Edwards Aquifer.

Todd was the recipient of numerous awards, including the Distinguished Alumnus Award from Purdue University, the John Hem Excellence in Science and Engineering Award from the National Ground Water Association, the C.V. Theis Award from the American Institute of Hydrology, and the Lifetime Achievement Award from the Groundwater Resources Association of California.

Visit [www.toddengineers.com/david\\_keith\\_todd\\_memorial.html](http://www.toddengineers.com/david_keith_todd_memorial.html).

## ***In Memory of Tom Babcock***

Tom Babcock, water conservation coordinator for the City of Phoenix, died in July of cancer. He worked for the city for 19 years, first as a water resource specialist, and in his most recent position for eight years. In an interview last spring with *WaterWiser*, the water efficiency clearinghouse of the American Water Works Association, Babcock said one of the greatest accomplishments of his career was working to bridge the water conservation interests of utilities with those of mechanical engineers and plumbing manufacturers to improve plumbing performance.

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## ***In Memory of Laurie Wirt***

Laurie Wirt, an aqueous geochemist with the U.S. Geological Survey, died in a kayaking accident in Colorado in June at age 47. She was particularly known for her passion for Arizona's Verde River watershed, and spent many years with the U.S. Geological Survey in both Tucson and Boulder working to improve understanding of the hydrogeology of the Verde area through isotopic and geochemical investigations. During her years in Tucson, Wirt was also active with the Arizona Hydrological Society.

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## ***In Memory of Chris Nunn Garcia***

Chris Nunn Garcia, professor and consultant on water policy and water planning, died of cancer in Albuquerque in July at age 62. Garcia helped develop the Watershed and Forestry Institute at New Mexico Highlands University and the University of New Mexico's Water Resources Administration Master's Program. She also taught at the University of Arizona's hydrology and water resources department. Garcia was a director of the New Mexico Water Dialogue and editor of its newsletter, an editor of the New Mexico Office of the State Engineer's newsletter, and author of numerous academic and research papers.

## ***Singer Receives Clarke Prize***

In May, the National Water Research Institute (NWRI) awarded the 2006 Athalie Richardson Irvine Clarke Prize to Philip C. Singer of the University of North Carolina at Chapel Hill. NWRI established the Clarke Prize in 1993 to recognize outstanding research scientists who have demonstrated excellence in water-science research and technology.

Singer's research has spanned a range of water quality issues, from understanding the chemistry of ozone—allowing for the development of chemical oxidation processes for drinking water treatment—to understanding the formation and control of disinfection byproducts (DBPs). His DBP work led directly to the development of water treatment and distribution practices to control DBP levels in drinking water distributed to consumers. Singer's results were used by the U.S. Environmental Protection Agency in setting regulations for both trihalomethanes and haloacetic acids, and in identifying coagulation as a best available technology to control DBPs. He has also taken the lead in linking environmental engineering with epidemiological principles to provide an assessment of the effects of human exposure to DBPs in drinking water.

NWRI was founded in 1991 by a group of Southern California water agencies in partnership with the Joan Irvine Smith and Athalie R. Clarke Foundation to promote the protection, maintenance, and restoration of water supplies and to protect the freshwater and marine environments through the development of cooperative research.

Visit [www.nwri-usa.org](http://www.nwri-usa.org).

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## ***Nevada State Engineer Retires***

Hugh Ricci retired from his position as Nevada's state engineer and administrator of the state's Division of Water Resources (DWR) in June. During his public service career, Ricci spent 25 years

# HYDRO CROSSWORD

by Mary Black

## ACROSS

1. BoR projects.
5. Flub an easy play.
8. The next step after an MS in hydrology?
11. Throw in the towel.
15. Type of exam.
16. Deep distress.
17. John D., whose ferry established a crossing of the Colorado River.
18. Org. that oversees a Boulder-based atmospheric research inst.
19. WWII battle site in France.
20. Consume.
21. A weather-related org; its annual meeting is in Jan.
22. Robert of Civil War fame.
23. Previous residents of modern-day Iran.
26. Country-western/TV star Chris.
27. You probably won't get one when you retire if you're a public servant.
30. Nickname of a Chicago newspaper.
31. Superlative suffix.
32. Gaelic.
33. Shakespearean contraction.
34. Of the continent of the Nile and the Sahara.
38. CDWR's Snow, familiarly.
39. 43,560 square feet, or 160 square rods.
41. Remain inactive.
42. Portuguese gold.
43. Fate, or a place from which rainfall can be harvested.
44. These come with the downs.
45. Show agreement or recognition.
46. Being broadcast as we speak.
47. Univ. Park campus.
48. This is mightier than the sword.
49. A tool useful in determining well location.
50. Chance to get an RBI.
53. Stitch.
54. Understand.
55. Toward the stern.
58. What you might smell on occasion.
59. Variety of reggae.
60. A Hershey's toffee bar.
61. Floral necklace.
62. I runs along the CA coast.
64. Fashion accessory common to Isadora Duncan and Alice Cooper.
65. Love to excess.
67. A venerable multi-volume language resource.
68. Agreement, such as between the CO Basin states.
69. CO<sub>2</sub> increase, for example.
70. Instrument used to monitor stream-flow.
73. An herbal beverage.
75. Celtic language.
76. Citer's abbv. for a misspelling.
77. Pioneering movie studio that produced *Citizen Kane*.
78. Wind with a speed of

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86						87				88				89			

Solution at [www.swhydro.arizona.edu](http://www.swhydro.arizona.edu)

- 32 to 63 MPH.
  82. van Genuchten, author of a water content model.
  83. It comes before dos.
  84. Juan Carlos, por ejemplo.
  85. Co-star, with 70 Down, of *Mr. Jones*.
  86. Advanced degrees in education.
  87. Lake Powell or Mead, e.g.
  88. Yiddish exclamations of dismay.
  89. Necessity.
- ## DOWN
1. Precursor of Windows.
  2. It could be op or pop.
  3. Evil in Hermosillo.
  4. What to hit in winter, to measure SWE.
  5. Pitcher.
  6. Young (dead) chickens.
  7. What Gayle Norton has become.
  8. What to try if your first attempt fails.
  9. Belonging to a USGS scientist who wrote the book on natural water chemistry.
  10. \_\_\_ Moines.
  11. What researchers ask and answer.
  12. Home of the new WaTeR Center (*SWH*, v. 4, no. 6).
  13. Intl. group based in Vienna; it has an Istotope Hydrology section.
  14. Lance's bike.
  24. A car's contribution to global warming, some say.
  25. What's in the vadose zone, besides soil and water.
  26. Leb. neighbor.
  27. Very small stream, or type of erosion.
  28. Nabisco snack, good with milk.
  29. Endangered species are on one.
  31. A young newt.
  34. Assist, or a U.S. relief org.
  35. Its headquarters is the "George Bush Center for Intelligence."
  36. Michelson, of *Southwest Hydrology* Advisory Board fame.
  37. Partner of neither.
  40. "Brain" of a computer.
  41. Offspring.
  45. Innovative.
  46. Run.
  47. Disease agents, focus of *SWH*, v.3, no. 6.
  48. Fog is sometimes compared to this type of soup.
  49. Common prefix for hydro consulting companies.
  50. Exclamation heard in the SW when the monsoon arrives.
  51. \_\_\_-State Seminar, a major annual water conference in the SW.
  52. Slang term for baseball base.
  53. Where the hydrologic cycle begins.
  54. Tool formerly used by roller skaters.
  55. A therapeutic xerophyte.
  56. Plant that begins life as a spore.
  57. Even-steven.
  59. Sorrowful.
  60. Site of New Mexico Tech.
  63. Tiny.
  64. Extension for some backup files.
  66. Komodo \_\_\_.
  68. A tributary to the Rio Grande.
  70. See 85-Across.
  71. *SWH* focuses on these and semi-such lands.
  72. Took advantage of.
  73. Ponderosa or aleppo.
  74. To some of us nerds, there's a fine line between these and tools.
  76. A Big one is on the California coast.
  79. Goes good with chips, mate.
  80. Fabrication.
  81. This is it.

with DWR and seven years with the Division of Environmental Protection.

Ricci's tenure as state engineer was noted for an emphasis on making all pertinent water resource records—including permits, certificates, maps, rulings, orders, well logs, and ownership summaries—available to the public online, as well as a major initiative to reduce the backlog of water rights applications and title work, while at the same time increasing the timeliness of decisions on new applications. In a press release, Nevada Gov. Guinn praised Ricci's "steady and thoughtful approach, together with his fair application of the state's body of water law."

Deputy State Engineer Tracy Taylor was named as Ricci's successor. A 22-year veteran of the Division of Water Resources, he served for the past six years as one of two deputy state engineers.

Visit [www.water.nv.gov](http://www.water.nv.gov) and [gov.state.nv.us](http://gov.state.nv.us).

## Gleick Elected to National Academy of Sciences

Peter Gleick, co-founder and president of the Pacific Institute in Oakland, California, was recently elected to the National Academy of Sciences (NAS). He was cited for his research and writings addressing the critical connections between water and human health, the hydrologic impacts of climate change, sustainable water use, privatization and globalization, and international conflicts over water resources.

Gleick was one of 72 new members and 18 foreign associates elected from 16 countries. NAS is a private organization of scientists and engineers dedicated to the furtherance of science and its use for the general welfare. It was established in 1863 by a congressional act of incorporation that calls on the Academy to act as an official adviser to the federal government, upon request, in any matter of science or technology.

Visit [www.nasonline.org](http://www.nasonline.org).