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**THE HISTORY OF EAST BAY WATER SUPPLIES**  
*by Sands Figuers*

As part of a project for the California Regional Water Quality Control Board I researched the water supply history of East San Francisco Bay from Richmond to Hayward. I reviewed historical groundwater use in the East Bay area from the creation of the Oakland and Alameda Water Company in 1865 until the entry of Sierran water in 1930. During those years, groundwater was a primary source of water for the East Bay area. When I began my research, one of the first things I discovered was that water supplies were virtually never mentioned in any history. Much of the written record was lost or destroyed and corporate memory lost. WRCA was the primary source of information for this history. I was able to extrapolate and recreate the histories from the manuscript and dissertation collections at the Water Resources Center Archives.

The Archives' records revealed a turbulent history of corporate warfare, founders' egos, and a continuous struggle to find water for a burgeoning population. Private water companies developed in nearly every town and were often headed by strong-willed and flamboyant directors whose egos prevented mergers and consolidations. The death and retirement of several water company founders and a series of droughts in the 1890's forced the merger/purchase of the larger companies into a single entity, the People's Water Company (1900). This company marked a fundamental change in the water business; a change from the cult of personality to the culture of corporate management. The original companies founded the business but the later companies needed to

improve the infrastructure, gain public support, comply with city and state regulations, find new sources of water, and make a profit. New ideas (disease control, developing new water sources, public awareness programs) and new technologies (filtration techniques, gasoline engines, drilling innovations, pumping systems, etc.) and disasters (San Francisco earthquake, World War I) caused additional turmoil and re-adjustment.

Because revenues could not keep pace with expenses, the People's Water Company was sold several times. By the beginning of the second decade of the 20th century, local water supplies were exhausted and private water companies did not have the financial resources to fund large-scale development of out-of-the-area water supplies. In response to continuing shortages, in 1924 the voters approved the creation of East Bay Municipal Utility District along with millions of dollars in funding. By 1930, high quality water was brought in from the Sierras, all groundwater supplies were shut down, and the private water companies were taken over. The waters from the Sierras allowed the area to continue to grow and prosper. After 60 years, however, we are reaching the limits of that water supply. East Bay MUD is once again evaluating local groundwater as a possible source of emergency water supply.

Without the Archives, the history could not have been written. WRCA's materials not only permitted me to recreate the story of East Bay water companies but its files are the only source of information for the answers to these critical questions:

- Where can high quality groundwater (i.e., the old well fields) be found?
- Where were pre-1950 wells drilled?
- What did the 1900 groundwater table look like?
- How much water can be pumped?

In conclusion, I wish to thank the San Francisco Bay Regional Water Quality Control Board (RWQCB), with the assistance of the Friends of the San Francisco Estuary, for funding this research. The findings presented do not necessarily reflect the view of these organizations. The complete report, Groundwater Study and Water Supply History of the East Bay Plain, Alameda and Contra Costa Counties, CA, is available at the Water Resources Center Archives.

*Sands Figuers is principal geological engineer, Norfleet Consultants in Livermore, CA.*

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## **DONATIONS**

The Archives gratefully acknowledges the following for their donations:

- **George Clifford White** for the donation of his books and personal papers.
- **Robert Teeter**, librarian at the Santa Clara Valley Water District, for the donation of duplicate books and reports from the Water District's collection.
- **Kim Laru**, librarian at the San Diego County Water Authority, for the donation of duplicate books and reports from the Water Authority's collection.
- **Carol Turnbull**, former University of California Berkeley student, for her donation of books on water resources.
- **F.C. Wheeler**, Reclamation District 349, Sutter Island, for the donation of the first 40 years of minutes from the District's board meetings.

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## **IN THE SPOTLIGHT -- Barry Hecht** *by Kathy Dieden*

**Barry Hecht**, principal of Balance Hydrologics, Inc., has directed specialized investigations of complex hydrologic, water quality and sediment quality questions for 21 years, in both surface and ground water systems.

Besides being a patron of the Archives since 1978, Barry Hecht is a donor who, on occasion, gives personal tours of the Archives to new members of the staff of Balance Hydrologics. Here are some of his musings on his own career and the field of hydrology.

Q: When and how did you become interested in hydrology?

A: My interest in hydrology is rooted in growing up in Arizona. As an undergraduate I was able to pursue my studies in hydrology through the independent-study program at UC Santa Cruz. Later I completed the ground-water curriculum at Stanford and a term of arid-lands coursework at UCLA. I came to UC Berkeley for graduate work because of the breadth of its soil and water-related coursework. WRCA was a vital aid in my studies in habitat hydrology.

Q: Why did you decide to open your own firm?

A: We established Balance Hydrologics to provide specialized and site-specific services. There was a real need for a small firm capable of providing quality hydrologic, groundwater, and water quality studies from

a geological or field-science perspective. Also needed was the freedom to take some risks with the physical dangers inherent in storm sampling.

Q: What kinds of projects does Balance take on?

A: Balance's work usually involves seeking and implementing approaches which allow the uses of water to be as compatible as possible with existing 'natural' or restorable conditions. We often work closely with professionals from other firms. Some of our investigations are directed toward meeting water-rights, wetlands, endangered species, water-quality, or coastal zone regulations; others are parts of broader planning efforts to manage these systems for their overall health or resiliency.

Q: What is the nature of your work?

A: We usually work with a blend of field observations and modeling, tailored to site conditions. Since it is typically easier to apply a model than to validate and calibrate it with field data, we often find ourselves in the field sampling during storms, hot spells or late summer when water availability or quality may prove limiting. We operate a number of stream gages and sediment-sampling stations throughout the state. Other technical specialties include measuring the hydraulic roughness of vegetated channels, identifying the sources of sediment based on mineralogy, and using ionic or isotopic tracers to track water movement.

Q: How has the work changed since you began Balance?

A: Our clients are more interested in the overall functioning of a stream or aquifer. We also find that an increasing number of our clients are hydrologists employed by agencies, districts, or non-profit community groups, who seek our help in planning programs for which they gradually assume responsibility. I am encouraged by both of these developments, which indicate the growth and maturation of hydrology. Finally, our abilities to safely carry out complex field programs or storm sampling has been enhanced by the availability of real-time data via internet, widespread cell phone coverage, and advances in datalogger technology.

Q: What does the future look like for hydrologists?

A: The future for hydrologists will depend largely upon their ability to innovate and communicate. Hydrologists need to develop new concepts and technical tools that address increasing demands for water of suitable quality, while recognizing that each watershed has unique attributes which shape how and whether it will be used, and by whom. The discipline will do well if it can continue to innovate, while also convincing society to value the judgment of its practitioners in applying

these new tools to the unique local conditions.

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## ANNOUNCEMENTS

Fall is a wonderful time to visit the Mono Lake Visitors' Center. While you're there, be sure to take a look at WRCA's exhibit, *Restoring the Public Trust*.

WRCA and the Centers for Water and Wildland Resources will exhibit at the 1998 ACWA Conference to be held in Palm Springs, December 2 through December 4.

### *Gifts*

WRCA wishes to thank the following corporations and individuals for becoming Friends of the Archives:

#### **Benefactors/ \$500 +**

- Central Valley Project Water Association
- Infotrieve Information Systems
- Todd Engineers
- Robert L. Wiegel, Professor Emeritus

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- Dian M. Grueneich

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- Edward L. and Mildred J. Bennett
- Jack Stewart

**Correction:** In the printed version of this issue of *WRCA News*, the volume/number designation is printed incorrectly as Volume 6, Number 3.