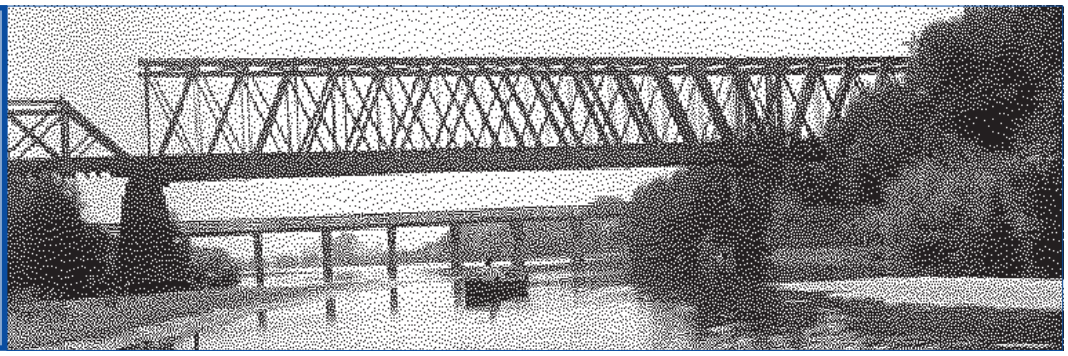
WRCA NEWS



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The Real William Mulholland

By Janet Mandelstam

Catherine Mulholland had a dual purpose when she set out to write a biography of her grandfather, William Mulholland, the much admired and much vilified chief of the Los Angeles Water Department. One was simply to tell the story of a close, devoted family and the self-taught engineer who was its rough-hewn father. The other, more compelling purpose was to refute what she "felt were truly outrageous accusations" about her grandfather's role in the building of the Los Angeles Aqueduct.

But when she turned out a 900-page manuscript, most of the homey details had to go. *William Mulholland and the Rise of Los Angeles* (University of California Press, 2000) is the exhaustively researched account of how Los Angeles got the water it needed to support an ever-growing population and the man who believed it was his duty to provide that water. The construction of the aqueduct, a feat considered comparable to the building of the Panama Canal, and the political battles that raged over it are interwoven throughout the heart of the book, with William Mulholland a central figure in both aspects of the story.

The saga of the water flowing from the Owens Valley in the eastern Sierra to the San Fernando Valley and into Los Angeles has captured the public imagination for nearly a century. The accusations that Catherine Mulholland tackles are well-known, too: That ranchers in the Owens Valley unfairly lost their land and their water to a deceptive, avaricious Los Angeles, and that a band of wealthy Angelenos knew in advance that the water was coming and gobbled up the San Fernando Valley.

Sitting in her home in Chatsworth recently, Mulholland said her research led her to believe that "a lot of the anti-Los Angeles feeling up there in Owens Valley was aroused by propaganda efforts by land developers and private power companies" opposed to LA's plan for municipal water and power. "The fact of the matter is that nobody ever put a gun to the heads of the Owens Valley ranchers who sold" their land to the city. "They received market value for the land. If some of them felt betrayed, well, I hate to say it, but the profit motive was mighty powerful. If they felt they could have gotten more money, I think that was of more concern than how rich an agricultural area they could have developed there. That may sound off the wall, but people are quite willing to countenance conspiracy theories that support the other side."

Still, she acknowledges that her grandfather probably knew that life in Owens Valley would be altered irrevocably if the water were taken. The original plans called for drawing water

only from the Owens River, but Los Angeles kept on growing "and he realized that it wasn't going to be enough water." That's when the city began pumping groundwater in Owens Valley, "and that's when it really dried up, in the 1920s. Once you start changing the landscape and water systems, you do sometimes end up with unintended – even undesirable – consequences." By then, however, Chief Mulholland's attention was focused elsewhere. He was eyeing the Colorado River as a new source of water for his city and campaigning for construction of Boulder Dam.

As for the San Fernando Valley land grab, Mulholland notes that the aqueduct was a public works project, "so very little was done in secret." (The one thing that was done in secret, she writes, was acquisition of some of the early water rights along the Owens River.) Socialists and laborites who opposed the aqueduct leveled accusations of collusion between William Mulholland and a syndicate of wealthy men that included Harrison Gray Otis and Harry Chandler of the *Los Angeles Times*. Their accusations were widely reported at the time and, Mulholland says, "have been taken up and repeated by reputable historians."

Her research showed that one section in the northeast corner of the valley was purchased in 1903 and 1904 and "may have been bought in anticipation of an aqueduct, but it's a very small piece of the San Fernando Valley. The big development – and this is where the confusion and the inaccuracy come in – occurred when the entire southern half of the valley was purchased by members of the syndicate, and that didn't happen until 1910 when the aqueduct had been under construction for several years. Anyone who chose to sell at that point knew the water was coming."

Otis and Chandler may have been gung-ho for Owens River water, but they and their cronies had embarked on a great land-buying binge in the early years of the 20th century. The same syndicate bought land in the San Joaquin Valley and along the Mexican border.

"Certainly they were acting out of self-interest, but it seems highly unlikely that Mulholland was their hand-maiden." Her grandfather, she says, barely knew Otis and Chandler. "He hobnobbed with engineers, attorneys, and civil servants. He didn't hang out with the capitalists."

After spending 35 years away from southern California, Catherine Mulholland now lives just five miles from the Northridge site that was the Mulholland family ranch. There's a K-Mart there now, and the grapefruit grove her father planted is gone, too, soon to be succeeded by a retirement home. The changes she encountered on returning "were so overwhelming that I really felt like Rip Van Winkle."

She's always known, of course, that changes in the San Fernando Valley were only possible with adequate supplies of water. She remembers her father taking her up to the terminus of the aqueduct in the northwest corner of the valley and saying with pride, "There's your grandfather's aqueduct." And on family outings the Mulhollands visited waterworks the way other families visited museums or zoos.

SHE REMEMBERS HER FATHER SAYING WITH PRIDE, "THERE'S YOUR GRANDFATHER'S AQUEDUCT

"I remember seeing a lot of pipe as a child," Mulholland recalls. "The adult discussions were way over my head, but I absorbed the importance of water. I was growing up on a ranch where the crops were irrigated and where the worst thing you could do was to let water run to waste. Wasting water was as unacceptable as stripping in public."

Catherine was 12 years old when William Mulholland died. "He had been a vigorous old man, an active player in the California water scene in his 70s and up to his eyeballs in the Boulder Dam controversy."

Then came the collapse of the St. Francis Dam in 1928 and the loss of more than 400 lives. If the aqueduct had been the triumph of his life, the St. Francis was the tragedy that ended his career. The dam had been built in response to a drought and was to hold additional water for the city as well as generate hydroelectric power. The Chief had approved the design and construction of the dam and accepted responsibility for its failure. Testifying tearfully at the inquest, he said he envied the dead. The cause of the collapse has never been clear cut, but some recent research suggests that a contributing factor may have been earth slippage of a kind that was not well known by geologists of that day.

William Mulholland's time was over. Arriving in Los Angeles from Ireland in 1877, he had for decades almost single-mindedly sought and delivered water to his adopted city.

His granddaughter believes he was motivated by his love of the place. "I think he was totally committed to living in this

land. He truly loved southern California and the life he found here. He didn't plan to be an engineer, but once be began working with water, he became totally devoted."

Janet Mandelstam is a former journalist and freelance writer and editor.

IN THE SPOTLIGHT

The Water Resources Center Archives (WRCA) is pleased to announce the launch of the San Francisco Bay Fund Inventory of Projects website at http://www.lib.berkeley.edu/WRCA/bayfund/. The website features an interactive Bay Area map with links to information about projects funded by the San Francisco Foundation's San Francisco Bay Fund. In 2000, the Foundation awarded 15 grants totaling $400,000 to local groups pursuing a variety of environmental, public health, fisheries and wildlife research, and restoration projects.

WRCA received a San Francisco Foundation grant to add summaries of Bay Fund Projects to the UC Davis Natural Resources] Projects Inventory (NRPI).

Researchers and the general public can use the database to find out about restoration and research projects in their local communities. An interactive map of the nine Bay Area counties makes it easy for users to locate and learn about specific projects. In addition to project descriptions, they will find contact and funding information for each Bay Fund Inventory project. WRCA will also lead an outreach effort to inform Bay Area residents of this source of information about projects to improve water quality and reduce pollution in the Bay and its watershed.

"The Bay Fund Inventory will be a valuable resource to the community," says Linda Vida, WRCA Library Director. "Funding for restoration and research projects is available from a variety of sources. The Inventory and related links to educational and community resources will help teachers, students, and environmental and community groups identify projects and funding sources."

According to Jane Rogers, Program Executive at the San Francisco Foundation, "The Inventory is intended to promote collaborative learning and community involvement in community-based projects."

Recipients of San Francisco Bay Fund grants in 2000 are: Alameda Creek Alliance, Alliance for a Clean Waterfront, ARC Ecology, Bay Area Open Space Council, Center for Environmental Health, Creek Keepers, Delta Science Center, Environmental Science Institute, Golden Gate Audubon Society, Natural Resources Defense, San Francisco Estuary Institute, Student Conservation Association, Treasure Island Wetlands Project, Urban Creeks Council of California, and Water Resources Center Archives.

The Water Resources Center Archives is located on the University of California at Berkeley campus. The mission of the Archives is to maintain and continue to develop a collection of current and historic water-related materials to meet the needs of the University of California and the people of the state.

The San Francisco Foundation is the regional community foundation serving Alameda, Contra Costa, Marin, San Francisco, and San Mateo counties. It is the fifth largest community foundation in the United States, with total assets in fiscal year 1999 of 680 million dollars. The assets are comprised of funds from individuals, families, corporations and organizations who choose to invest and make a difference in their communities.

For more information about the San Francisco Bay Fund Inventory contact:

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BOOK REVIEW

By Janet C.Collins

International Joint Commission, *Tenth Biennial Report on Great Lakes Water Quality,* July 2000, 69 pages.

The International Joint Commission (IJC) is 90 years old this year. The first Great Lakes Water Quality Agreement was signed in 1972 and is considered to be one of the most far-sighted international agreements in history. The signatories to the agreement are the Canadian and United States federal governments and the state/provincial governments bordering the Great Lakes. This agreement was updated in 1983 and again in 1987.

The biennial reports of the IJC began to be produced in 1980 and were initiated partly in response to research that demonstrated disturbing trends in wildlife due to the adverse effects of pollution, particularly chemical pollution. Some of the adverse effects noted included gross physical deformity (crossed beaks in sea birds), thin-shelled eggs, gender confusion and infertility. The biennial reports have become a report card on how the various governments are succeeding or failing in their mandate to protect, maintain and improve the integrity of the Great Lakes and tributaries.

The agreement has 15 Annexes, each with a particular area of concern. Not all Annexes are necessarily mentioned in each report. This report is 69 pages long, is divided into 8 chapters and is followed by 3 Appendices. One should not be deceived into thinking that brevity means light in content. Quite the opposite. The economic emphasis of the text lends import to every sentence.

Sixty million people and a significant concentration of industry exist along the shores of the Great Lakes, resulting in a huge pollution problem. The report attempts to give direction and guidance in cleanup.

Each chapter addresses either the focus of a single Annex, or a group of Annexes that cover a strongly related group of issues. Chapter 2 covers Annex 2, Remedial Action Plans (RAPs) and Lakewide Management Plans (LaMPs) . Chapter 3 covers Annexes 12, 14, 15 – Persistent Toxic Substances, Contaminated Sediment and Airborne Toxic Substances – with added comments and observations on the Great Lakes Binational Toxics Strategy.

In each chapter the IJC examines the problems, how they have arisen, what has been done, what has not been done, what needs to be done and what realistic results can be expected. Praise is given where praise is deserved; criticism is given where criticism is deserved. Sadly there is more criticism than praise. Often progress is slow due to "a lack of jurisdictional consistency in laws, regulations and policies directed at Aquatic Nuisance Species (ANS) prevention and control efforts" (5.2, p.35). In this instance it is the failure of a cooperative and coordinated response to the invasion of ANS zebra mussels and round goby. The IJC applauds the level of remediation of sediment polluted with PAHs in the Black River but also points out that there is still much work to be done. Each subsection and chapter ends with recommendations for action and remediation.

The report goes beyond the specific nature and areas of pollution and the success/failure of intergovernmental cooperation. It also assesses the level of input from the community, how information is and should be shared for maximum effect, and public and scientific consultation, with the final goal being virtual elimination of all pollutants. The scope is considerable. The chapters deal with Persistent Toxic Substances, Land Use, Coast Guard Annexes (which deal with shipping, alien species etc.), Information and Data Management, Indicators and State of the Lakes Ecosystem Conference (SOLEC), and other issues. The Conclusions and Recommendations at the end of the report offer additional recommendations for each of the preceding chapters.

The IJC points out that overall progress has been made in the past 25 years. But the problems are huge and require a considerable commitment on the part of all governments if the lakes are to reach a state in which the water is drinkable, the fish are edible and children can swim in the waters without endangering their health. Without making a political statement

the IJC does point out that ground has been lost in the process of remediation of the Great Lakes over the past 5 years.

Everything about this report is clear, concise and to the point. To those of us who have known it for many years, it is an invaluable resource of dependable information. The next report will be due out in 2002. Meanwhile, the public consultation conference is scheduled for September 2001 in Montreal.

* * *

Free copies of the report in English and French – both single and bulk copies – can be obtained from the following address:

International Joint Commission,
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Canada
Phone: (613) 995.2984

Telephone orders in bulk will be shipped by Federal Express free of charge

The report can also be found online in html and pdf formats at:
http://www.ijc.org/

A retired nurse/midwife, Janet Collins is a devoted social/political and environmental activist. She makes her home in Kingston, Ontario.

SURVEY OF WATER & IRRIGATION DISTRICTS

By Randal Brandt

In July 2000, WRCA received a grant from the Librarians Association of the University of California (LAUC) to conduct a survey of historical and current records held by California water and irrigation districts. This survey is now in progress. The purpose of the survey is to collect information about each district and to survey the extent and type of records and documents that each district may have, storage conditions, accessibility, etc. This information will be compiled by WRCA as a centralized web-based resource that will be available to the districts. The database will also provide summary information regarding each district. A paper version of the survey has been mailed out to each district and an online version is available at http://www.lib.berkeley.edu/WRCA/survey.html. Please contact Erica Nordmeier at enordmei@library.berkeley.edu or 510-642-2666 for more information.

DID YOU KNOW?

? A person uses more household energy shaving with a hand razor at a sink than he would by using an electric razor.

? Boiling water absorbs over six times more energy in changing to steam than is needed to heat the water from freezing to boiling.

? Every day, 8.5 million tons of water evaporates from the Dead Sea, on the border between Israel and Jordan.

? Thirty gallons, or 135 litres, of water is used for an average shower in the United States.

? Virga are streaks of water drops or ice particles falling out of a cloud and evaporating before reaching the ground.

? If all the water in the atmosphere at any one time was to fall as rain, it would cover the entire Earth's surface to a depth of 1 inch.

? A leaking toilet can waste as much as 200 gallons of water a day without making a sound.

Find more useless facts at UselessKnowledge.com!

FALL COLLOQUIUM SERIES

By Janet Mandelstam

The past, present and future of water resources were covered by speakers in the Fall 2000 California Colloquium on Water sponsored by the Archives. The first lecture of the series was given by Professor Emeritus Gerald Orlob. He discussed the environmenal problems of the Salton Sea. (*WRCA News* Volume 7, Number 3, October 2000) Photographer and author Peter Palmquist looked at 19th Century images of California

water by photographer Carleton Watkins; economist Leah Wills urged financial support to maintain upstream watersheds, and Peter Gleick, director of the Pacific Institute for Studies in Development, Environment and Security, presented the findings of a study on how global warming will affect water resources.

Speaking at the monthly forum in October, Gleick recalled that ten years ago there was a debate over whether climate change was a problem or not. Today, he said, "I think that debate is over." And the answer is clearly "yes."

The two-year study by the Pacific Institute and the U.S. Geological Survey concluded that there is increasingly compelling scientific evidence that humans are changing the earth's climate, that the change will pose serious challenges to our water systems in some locations, and that current engineering practices may be inadequate to meet those challenges.

In general, Gleick said, temperatures and precipitation will continue to rise, although the changes will vary from region to region. In the mountains there will be more rain, and less snow. The shorter snow season will result in higher winter runoff and lower spring runoff. The frequency of floods and droughts will change, "but we can't predict where," he said.

According to the study, a rise in sea level will push salt water into rivers, deltas, and aquifers, adversely affecting water quality and quantity. Aquatic ecosystems will be impacted, Gleick said, but more research is needed to determine what changes will occur.

In California specifically, the impact of climate change will be significant. "Almost all water resources come from the Sierra and are dependent on snowfall/snowmelt dynamics," Gleick said. "We're likely to see more rain and less snow with an increase in winter flows and a decrease in spring and summer flows. Water managers haven't begun to think about this."

Climate models have assumed that water systems will continue to operate in the current manner as changes occur. "We don't know how the effect could be altered with changes in water use, water rights, or other systems," Gleick said. "There are many opportunities to reduce the risks of climate change on U.S. water, but we can't rely only on traditional management methods. Governments at all levels should re-evaluate their ways of managing water by including climate as a factor."

Along with better planning, recommendations in the study include more efficient use of water and looking at other means of supply such as wastewater reuse and desalinization. "The reality is that we can expect climate change," Gleick said. "It will affect water resources, and we're not planning for it."

In November, Leah Wills, an economist with the Plumas Corporation, turned her self-described "activist perspective" to the subject of maintaining upstream watersheds. Located at the headwaters of the state water project, Plumas County and the Feather River watershed "drive the California economic engine," Wills said, "but none of the value of the water comes back to the watershed."

As an activist working with grassroots community-based organizations, Wills said the "first task is to advocate for a fair share of the money generated by the water, to restructure the economic flow of the money so that it goes to maintain the system. PG&E generates $150 million a year in revenue from the Feather. We want a little bit of that to maintain the ecosystem that provides the water" for places like San Diego and Los Angeles and the cotton fields of southern California.

An important step, she said, is to recognize that the natural world is an integral part of the infrastructure. She imagined a mural of the Feather River watershed in San Diego, "and everyone knew what it was and what it meant. It would only take the equivalent of $12 for every person in San Diego – one dinner – to restore the Feather."

What's keeping the goal from realization is the absence of a state water budget, she said. If money were allocated for watershed preservation, "the payoff would be more water for the Delta and more water for the South."

Carleton Watkins, whose photographic images were shown by Peter Palmquist in December, appreciated the aesthetic and artistic value of water. Watkins, whom Palmquist described as the "Ansel Adams of the 19th Century," took 2,000 pounds of equipment into Yosemite beginning in 1861 to take photographs for the Geological Survey. He climbed the trails with pack animals carrying much of the equipment he needed for a "wet plate" process that used 18x22-inch negatives weighing four pounds apiece. His photographs were used to convince Congress to preserve Yosemite and were the inspiration for artists such as Albert Bierstadt.

In many of his Yosemite images Watkins used water as a foreground element in order to take advantage of reflections. He shot the lakes, rivers, and falls of Yosemite, often from dizzy-

ing heights.

Palmquist, who has been studying and collecting Watkins' work for 30 years, described a man whose work was well-known and highly praised, but who lived much of his life in poverty. Watkins' San Francisco studio was destroyed in the 1906 earthquakeand fire; he opened a gallery that went bankrupt, and he lost his negatives to a competitor.

But his images survive. In addition to the Yosemite photos, Palmquist showed how Watkins depicted the force of water in a series of mining pictures and how he captured the mystical qualities of water on the Mendocino coast.

CALIFORNIA COLLOQUIUM ON WATER -- SPRING 2001

The popular lecture series, the California Colloquium on Water, continues this spring with four programs.

The Spring 2001 series kicked off in February with Attorney Arthur L. Littleworth asking the provocative question, "Are We Going to Run Out of Water in California?"

Upcoming programs are scheduled for:

☞ March 13: "MWD: Challenges in a Changing California" by Ronald Gastelum, General Manager, Metropolitan Water District of Southern California.

☞ April 10: "Understanding the Sacramento-San Joaquin Bay-Delta – An Engineering Perspective" by Richard Denton, Water Manager, Contra Costa Water District.

☞ May 8: "What Makes Water Wet?" by Richard Saykally, Professor of Chemistry, University of California, Berkeley.

Pre-lecture receptions are held at the Archives, 410 O'Brien Hall, from 4:15 to 5 p.m. Lectures begin at 5:10 p.m. in 212 O'Brien Hall.

The lectures are designed to increase the understanding and appreciation of water resources among students, faculty, and the general public. The series is co-sponsored by the UC Berkeley Center for California Studies, College of Engineering, College of Letters & Science, College of Natural Resources, and Boalt School of Law.

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The following duplicates were received at the Archives and are available free by sending email to Michele Feltman-Strider, mfeltman@library.berkeley.edu, calling (510) 642-2666, or faxing (510) 642-9143.

Views of the State of California on Water Resources and Power Functions of Federal Departments and Agencies submitted to the Commission on Organization of the Executive Branch of the Government Task Force on Water Resources and Power, May 3, 1954. State of California.

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The Water Resources Center Archives