Water And Power Associates. Inc.

Year 38, Volume 4 — **Newsletter** — October 2009

President's Notes

By Thomas J. McCarthy

≈ POWER SYSTEM ≈

At the August 12 Associates Meeting, Jeff Peltola, CFO of DWP, made a presentation that was prepared in readiness for the Board's action to modify the DWP rates relative to the Energy Cost Adjustment Factor.

The Department's primary concern is that it remains a competitive provider while maintaining financial requirements relative to Bond Rating, City Transfer, Operating Reserves and Appropriate Debt to Equity Ratio.

The biggest piece of the rate modification is the Energy Cost Adjustment Factor (ECAF). The Board has approved these proposed changes, but Section 245 of the City Charter was exercised and gives the Council the chance to overrule them. This action will be discussed later.

This above action would provide an additional $225 million to the Power System. There are several goals under the ECAF; namely, to maintain debt service coverage of 2.25 times debt, to have net income equal to or greater than 8% above the prior year's gross operating revenue to maintain operating cash reserves of $300 million, and to maintain a balance between debt and equity of 60% debt to 40% equity (cash) to fund capital improvements. The current energy cost adjustment factor under the pass-through allowance can only go up one-tenth of one cent for every KW hour per quarter and will not support the aggressive renewable goals. DWP currently has a $140M under-collection of ECAF revenue. The five-year capital expenditure program will need be cut 62% if DWP is to maintain its AA Bond Ratings. Future ratepayers may face a massive liability if DWP has extended periods of unanticipated non-DWP owned power purchases or fuel cost increases. The proposed ECAF would increase by 2 cents per KW hour per quarter, while removing the cap on the ECAF would likely prevent a reduction in bond ratings. **This does <u>not</u> include any additional CO2-mandated cap and trade costs from the State.** *(Continued on page 9)*

Winning the Water War

Plans to manage the San Joaquin delta -- the hub of the state's water system -- have finally got it right.

By Timothy F. Brick

A generation ago, Southern California Water managers thought they had the solution for dealing with the hub of the state's water system -- the magnificent Northern California estuary known as the Sacramento-San Joaquin River Delta. They wanted to build a canal from the delta to the existing aqueduct system that sustains San Joaquin Valley agriculture and Southern California.

They were wrong. And now we finally have the chance to do it right.

Five draft bills as part of an overall plan have been introduced in the Legislature that could lead to better governance in the delta and wise water management statewide. Like all drafts, some areas need refining. Like all complex packages, there are voices calling to delay and to defer. But delaying and deferring are no longer options. The Legislature in the coming weeks must put the delta on a path to recovery for the sake of the environment and the state's $1.8 trillion economy.

In 1982, I was an activist and among the critics who successfully fought the so-called peripheral canal in a historic statewide election. Why? The solution's sole purpose was water supply. There was no visible effort to conserve water, to diversify supplies through recycling or to restore the delta itself. To paraphrase a fellow critic, the plan was all plumbing and no policy. *(Continued on page 2)*

Inside This Issue

Winning the water war plans ~ manage the San Joaquin delta

Timothy F. Brick
is chairman of the board of directors of the Metropolitan Water District of Southern California, representing the city of Pasadena.

(Continued from page 1)

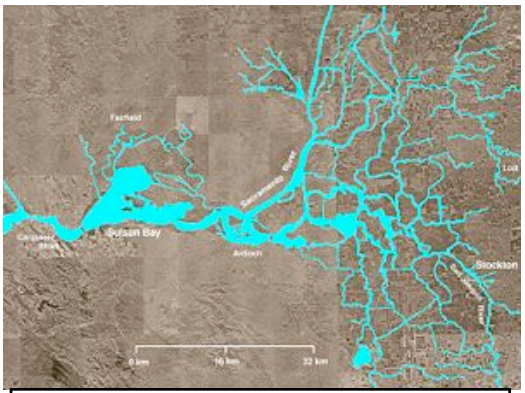
The Legislature now finds itself in another delta debate brought to the forefront by a generation of gridlock, half-steps and a true environmental crisis. That has brought us to these new plans for a delta water conveyance system -- whether it will be a canal, a tunnel or some combination is still to be decided. But this combination is still to be decided. But this time, there is also a plan to mandate water conservation statewide and one to bring water management and the collection of water-use information into the 21st century.

Most important, there is a proposal to restore tens of thousands of acres of delta habitat to provide much-needed shelter and food for salmon and other threatened species. Its scope and sophistication are precisely what the delta needs at this critical moment. Dwindling fish populations have triggered new and extraordinary delta water-supply restrictions. They threaten to indefinitely keep Southern California and much of the state in shortage or near-shortage conditions.

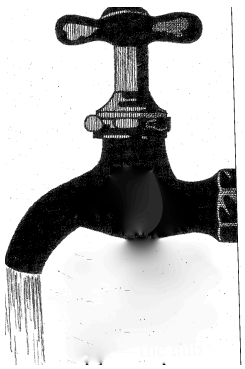
There is no hiding that "the canal" remains a lightning rod, given the 1982 battle, which was arguably the most regionally divisive issue in state history. any sustainable conveyance system, which would be funded by the Metropolitan Water District of Southern California and other water agencies and not the state general fund, needs to be large enough to capture some of the runoff during the occasional big storms. The system, however, also has to be carefully operated and legally linked to a real habitat strategy for the delta.

California has never had a comprehensive plan like this for the delta. But it will, hopefully by the end of 2010, in conjunction with the Legislature and through a state and federal effort known as the Bay Delta Conservation Plan, which is supported by several key environmental groups and many water districts. The BDCP's goal isn't just bare-bones compliance with the Endangered Species Act but rather species recovery, the highest bar of any environmental law in the country.

As the provider of delta water supplies to a six-county region, the MWD seeks to meet and exceed that goal. We also support legislation mandating statewide water conservation, including more in our own backyard, better reporting of water use and better science in the delta.



Aerial view of the Sacramento delta



Southern California doesn't seek more water from the delta. But it is obvious that a major investment in a new and better way to move water supplies across the delta is necessary to maintain something close to our traditional supply. The alternative is to risk losing this supply altogether through additional environmental restrictions or a collapse of the system from a large earthquake that seismologists predict for the coming decades. The region's water system depends on reliable baseline supplies to make emerging strategies work, such as recycling, conservation and groundwater cleanup.

For the delta, chances like this don't come along very often. We've never seen a entire package like this that advances water policy and makes the responsible plumbing changes. We're at the brink of a sustainable water future for California -- if we seize the moment.

Tim Brick was also a guest speaker at the W&P Associates' August 9, 2006 meeting, and he often contributes articles for our review or publication.

Article from L.A. Times, 8/26/09, submitted by David J. Oliphant.

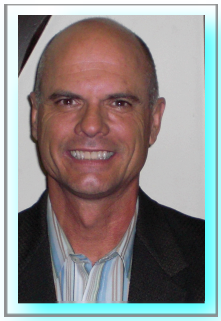
Welcome, Guests

Jeffrey L. Peltola

Chief Financial Officer
Financial Services Organization
Executive Director
Department of Water and Power
City of Los Angeles

Ralph T. Hicks, Jr.

Manager,
Real Property Development and Management
The Metropolitan Water District of Southern California



Lisa Yin

Financial Services Organization
Department of Water and Power
City of Los Angeles

Guest Speaker Presentation

LADWP Proposed Energy Cost Adjustment Factor Modification

Following is a summary of the Power System's Energy Cost Adjustment Factor Modification (ECAF) information that was presented by Jeff Peltola, LADWP's Chief Financial Officer, at the Associates' August 12th meeting.

❑ The Board of Water and Power Commissioners at its special meeting on May 21, 2009 requested LADWP to initiate modification to the ECAF Cap for Board approval to ensure implementation by October 1, 2009. The proposal, presented at the August 4, 2009 Board meeting, would change the existing quarterly ECAF limit over the previous quarter and could be increased by a multiple of $0.020/kWh for every multiple of $200 million increase or decrease in the ECAF account in under or over collection (the current limit is $0.001/kWh).

❑ The ECAF cap modification is required to ensure the Power System maintains its "AA" Bond Ratings. The increase will provide the revenue to meet the following financial planning criteria:

❑ Debt service coverage greater than 2.25 times.

❑ Minimum cash target of $300 million.

❑ Capitalization factor less than 60%.

❑ Maintain City Transfer equal to or greater than 8%

❑ The policy of LADWP will be to limit the total annual increases for base rates and pass through charges to less than 10%, unless unfavorable financial conditions arise that will not allow LADWP to meet the required financial criteria.

❑ The recommended Power System Financial Plan (Plan) over the next 5 years will see the ECAF approach 50% of revenues and this assumes that there are Base Rate increases in the last 3 years of the Plan. The primary increases to the ECAF are driven by renewables. The Plan also includes substantial borrowing in the amount of $4.125 Billion over the next 5 years.
The Plan assumes that Demand Side Management (DSM/Conservation) and Customer Solar will basically offset any energy load growth.

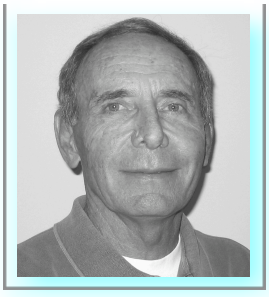
❑ The recommended Plan anticipates that the average rate for all customers will go from the current $112/megawatt hour (11.2 cents per kilowatt hour) to $172/megawatt hour (17.2 cents per kilowatt hour) in 5 years. The is an increase of over 50%.

❑ In conjunction with the ECAF modification, LADWP is proposing to restructure the Residential Rate. The proposed 3-tiered and zonal rates are to encourage conservation, minimize rate impact on customers (Tier 1) who conserve energy, and reduce demand on the power system. The business community may see a larger increase than the residential sector.

❑ In summary, LADWP is proposing a substantial and far reaching Financial Plan. The Plan is still under consideration and needs to be presented to affected parties, such as the Neighborhood Councils (some presentations have been made), and LADWP's business community.

Postscript: City Council has sent DWP's ECAF proposal back to DWP for further evaluation.

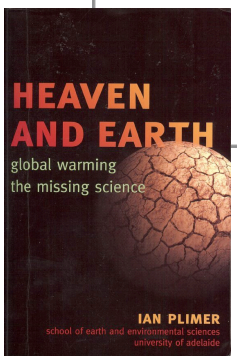
Summary by John W. Schumann



BOOK REVIEW

Heaven and Earth ~ global warming the missing science
By Ian Plimer

Published 2009 Taylor Trade Publishing,
(an imprint of The Rowan & Littlefield Publishing Group, Inc. Maryland)
$21.95



Media has saturated us with "sky is falling" articles about global warming. Billions are being spent in an attempt to change the world climate to prevent warming from happening based on a UN report made by the Inter Governmental Panel on Climate Control (IPCC) warning us to reduce humanity's "carbon footprint" or face disastrous consequences. In Heaven and Earth - global warming the missing science, Ian Plimer presents the opposing view in a well-organized, well-reasoned and detailed scientific refutation of the global warming premise, pointing out the flaws in evidence and reasoning behind the report and the Al Gore movie *An Inconvenient Truth* based on it.

Ian Plimer is a geologist with excellent credentials. Professor of the School of Earth and Environmental Sciences, University of Adelaide, Professor Emeritus of Earth Sciences at University of Melbourne, former Professor and Head at the Universities of Melbourne and Newcastle, and winner of numerous science awards, including twice winner of the Eureka prize, Australia's highest science award.

The IPCC and Gore's movie claim a consensus of scientists support the IPCC conclusions. However, after pointing out that science is not determined by consensus but by facts, Plimer shows that there is not consensus even among the scientists who were involved in the review of the IPCC report. ①

Plimer notes that the IPCC report relies on computer models which omit major climate factors to conclude global warming is being caused mainly by industrially generated carbon dioxide (CO_2). Plimer's book gives a very detailed explanation of the major factors that affect climate and climate temperature, which include sun, cosmic radiation, volcanic activity (undersea and on land), tectonic plate movement, earthquakes, earth wobble, El Nino/La Nina. Those factors do not include CO_2, which at best is affected by climate after the fact (by 400-500 years), but is never the cause of warming.

Among many evidentiary items he presents to show that CO_2 does not cause global warming, Plimer notes that during ice age **glaciations**, CO_2 content was more than 4000 parts per million volume. By comparison in 2005 it was 375 ppmv. Based on the IPCC model, with 4000 ppmv CO_2 there should have been a runaway greenhouse effect, instead of which there was glaciation. Commenting on factors ignored, Plimer writes "One hot spring can release far more CO_2 than a 1000 mW coal-fired power station yet they are neither seen nor measured. Submarine volcanic gas does not even figure in calculations of the sources and sinks of atmospheric CO_2 in the IPCC climate models."

Plimer cites facts that show global **cooling** since 1998, confirmed by the IPCC's own figures. He notes the failure to take into account prior warming periods before man's modern industrial times (e.g. Medieval Warming period) where global temperature was much higher than present, with no biological harm. The most successful periods biologically (and for man) have been during historic warming periods. The Medieval Warming Period creates a large obstacle to the CO_2 global warming theory because temperature rose when there were none of man's modern industrial activities. To counteract that, in its 2001 report the IPCC introduced the questionable "hockey stick" graph which altered an earlier IPCC 1990 graph to remove historical showing of the Medieval Warming Period and the Little Ice Age to show temperature as a straight line until year 2000, then turn the end of the graph upward to show the greatest heat from 2000 forward. This graph was shown to be patently false following independent investigation by an eminent team of statisticians appointed by the House Energy and Commerce Committee. Plimer calls the graph a fraud and traces in detail steps taken by the graph's creators to avoid disclosing their methods and data. When the Medieval Warming Period and the Little Ice Age are taken into account, the Earth is in a natural warming period following the conclusion of the Little Ice Age and that warming is proceeding at the same pace it has for the past three centuries. *(continued on page 5)*

(continued from page 4) Plimer shows CO_2 has at best a minor connection with climate change. He discusses the very minimal amount of CO_2 contributed by man, as compared to the major part of CO_2 in nature controlled by ocean, volcanoes, earthquakes and other major climate factors, such as El Nino/La Nina. ②

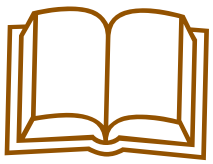
He contends errors in the IPCC underlying facts. He notes conflicts between measurements made by landbased thermometers which are far less reliable (being affected by location of most landbased thermometers in cities with urban heat bias, subject to error of + or - 0.5 degrees C even when accurately calibrated, and often located in areas which do not meet World Metereological Association siting standards) but mainly relied on by IPCC to calculate warming, where satellite and weather balloon measurements of the last 30 years show conflicting, opposite and more accurate results. ③

He notes the difficulty of measuring sea levels relating to IPCC predicted ocean rises, when note is not taken of the rise and fall of sea beds affected by techtonic plate and sea bed movement, undersea volcanic eruptions, earthquakes etc. (There are some 10,000 undersea earthquake eruptions per year.) The IPCC is predicting climate by 2100, when climatologists having difficulty predicting El Nino/La Nina climate effect from year to year. Based on the IPCC warming predictions, we are spending billions to attempt to change the climate, assuming that we could find ice. ④

Plimer notes that based on the IPCC report, the Gore movie predicts polar bears will soon be extinct because of ice melting and reported polar bears drowning while trying to find ice. In fact, Plimer states, the sea ice has expanded and four polar bears which supposedly died trying to find ice actually were killed by high winds from an Arctic storm in an area where the temperature was getting colder. Plimer discusses a lawsuit that was brought in England to prevent the showing of *An Inconvenient Truth* in the schools as violative of English statutory law. Plimer lists nine major discrepancies found by the Judge that differed from scientific data, including that one about the polar bears. A check of the outcome of the trial on the Internet shows the judge, noting the politically partisan nature of global warming, ruled that the movie could only be shown if it was accompanied by updated guidance notes to point out controversial or disputed sections. Without guidance to counter its "one-sided" views, the judge told London's High Court that distributing the film would breach education laws. ⑤

Plimer says that various green movements claim that those who deny the hypothesis ⑥ that humans are causing climate change have this view because they are supported by the petroleum and coal industries. Plimer cites responsively a US Senate report which shows that greens are the best-funded quarter of the advocacy industry. Between 1998 and 2005, the 50 biggest green movements in the USA attracted revenue of $22 billion. ⑦

Plimer's book, while written for the layman, may seem heavy with scientific details for some, with over 500 pages and some 2300 references to peer-reviewed scientific literature, but it authoritatively presents the science supporting those who question global warming as a threat to our existence.



Footnotes

{1} Supportive that there is not consensus is shown by the March 30, 2009 full page Ad in the Los Angeles Times signed by some 117 science professors from universities across the US and around the world, stating among other conclusions that global warming was "grossly overstated," that there has been no net warming for a decade, with no increase in damages, and that "scientific facts regarding climate change and degree of certainty informing the scientific debate is simply incorrect." Signers include professors from Princeton, Stanford, MIT, four of the IPCC reviewers, some 18 foreign countries, including Canada, Australia, New Zealand, Norway, Germany, Italy, and South Africa, and the President of the World Federation of Scientists. It is also shown by books such as The Deniers by Lawrence Solomon profiling some of the leading eminent scientists, including IPCC reviewers, who likewise disagree with the IPCC report, Climate Confusion by Roy Spencer, the Politically Incorrect Guide to Global Warming and Environmentalism by Christopher C. Horner, and Cool It by Bjorn Lomborg, which we reviewed in February.

{2} The IPCC fails to adequately separate man's small contribution to CO_2 from natural contributions. Plimer says "If humans burned all the fossil fuels on Earth, the atmospheric CO_2 content would not even double. A very slight change to any one of a number of natural systems would swamp any CO_2 additions by humans to the atmosphere." *(continued on page 6)*

Heaven & Earth
global warming
the missing science

Footnotes

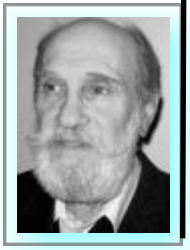
(continued from page 5) {3} Plimer notes measurement errors are commonly subject to + or – 0.5 degrees C error; that we commonly read temperatures have risen 0.7 degrees C during the 20th Century, which practically means temperature is actually 0.7 + or – 0.5 degrees C. He cites errors from poor siting of the Stevenson thermometer screens provide + or – 0.3 degrees C variation, errors due to the difference in heat effect of wood versus plastic screens + or – 0.1 degrees C variation, errors due to urban heat island effect + or – 0.4 degrees C variation. Total errors are thus subject to + or – 1.3 degrees C. Therefore, to say that global temperatures have risen by 0.7, with + or – 1.3 degrees C variation possible, over the 20th Century is meaningless. The only scientific conclusion, he says, is that temperatures may have increased, been static, or decreased over the 20th Century from using the land-based thermometers.

{4} Plimer points to the needs of today that are being ignored to spend money on global warming. "Since the inception of the Kyoto Protocol, some $10 billion a month has been spent to avert a speculated 0.5 degree C temperature rise by 2050. These funds would already have provided all of the Third World with potable water, reticulated electricity and would have reduced global atmospheric pollution. And yet many environmentalists cant about morality and ethics!" (Plimer, p. 471)

{5} See BBC News, Gore climate film's nine 'errors' 10/11/07; Times Online, Al Gore's inconvenient judgment, 10/11/07

{6} Al Gore called them "deniers." Some use the term "deniers' to equate them with the Holocaust deniers. But, the so-called "deniers" include some of the most eminent scientists with strong integrity. See *The Deniers* by Lawrence Solomon, p.3.

{7} He also mentions the hypocrisy of Gore who while consuming 221,000 kW of electricity per year at his Tennessee residence (20 times the US average) excuses it by purchasing renewable energy offset credits from his own company. Apparently, you can have your cake and eat it too! ✍

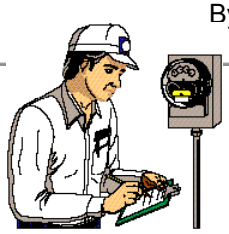


By David J. Oliphant

LA applies for $200m smart grid stimulus funding

Los Angeles Department of Water and Power seeking financing for rollout of more than one million smart meter devices

By Cath Everett, BusinessGreen, 20 Aug 2009



4. August 20, Business Green – (California)

The largest urban utility company in the United States has become the latest in a long line to apply for federal government stimulus funding to speed up the creation of a smart metering system for use by its domestic customers.

The Los Angeles Department of Water and Power (LADWP) is seeking $200m, the maximum financing available to it under the American Recovery and Reinvestment Act, to help finance its ambitious smart grid plans.

In May 2008, LADWP, which has 1.4 million customers, submitted proposals to the California Energy Commission for a smart grid, which would lead to the deployment of 100,000 two-way smart meters and a further 1.3 million one-way devices over five years.

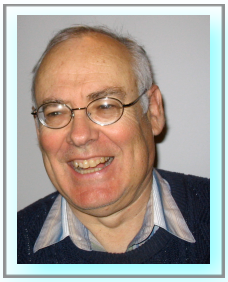
It is unclear whether the latest funding request is linked to these or other plans, but the application listed a "smart grid implementation project" among other initiatives.

Meanwhile, the utility has already installed smart meters from **SmartSynch** at commercial and industrial customer sites in order to analyze energy consumption patterns and establish peak demand times to minimize brown-outs.

The company is also collecting load profile information from solar installations so that it can notify hospitals, schools and other government buildings of potential outages in real time. According to an LADWP board meeting agenda dated 21 July this year, the company likewise intends to award **SmartSynch** an $8.9m contract to provide wireless communications services related to both smart grid infrastructure and metering for outage management purposes. ✍

Submitted by Thomas McCarthy

Owens Valley Farming, Trains, & Nevada Gold



By Abraham Hoffman
Reprinted from Dan Stark, ed., Rails and Tales of Southwest Nevada: Goldfield, Tonopah, Gold Point. ECV TRASH Trek Guidebook No. 36, 2009

Counterfactual history is a form of historical writing based on the idea of "What if…?" Such writing asks questions in the manner of "What if the South had won the Civil War" or "What if Kennedy escaped assassination." It examines possible alternatives to the reality of what actually happened. Although counterfactual writing is sometimes frivolous, it can also offer ideas on how such events would have altered the course of history.

Owens Valley farmers and ranchers in the early 20th century held the view that the Nevada mining towns such as Tonopah, Rhyolite, Goldfield, and Bullfrog lacked access to reliable food sources. The most likely supplier of food, according to Owens Valley residents, was the Owens Valley. Freight wagons moved too slowly to bring perishable items from Owens Valley to southwestern Nevada, and the Carson and Colorado Railroad, a narrow-gauge line connecting Carson City, Nevada, to Owens Lake, was a roundabout route that didn't make a connection to the boom towns. However, a new rail line, the Tonopah & Goldfield Railroad, did connect to the Carson & Colorado at Tonopah Junction. This gave Owens Valley the connection it needed to make the delivery of agricultural products feasible.

Modern travelers expect as a matter of course that if they are traveling from Point A to Point B, they would do so directly rather than going from A to C to D to get to B. Passengers on trains in Nevada and the Eastern Sierra region did not have the luxury of a direct route. In the 1880s the ambitiously named **Carson & Colorado Railroad** was built with the goal of connecting Carson City to Fort Mohave on the Colorado River. An economic depression in Nevada ended the plan, and instead the Carson & Colorado went south through Hawthorne and Sodaville to a terminus at Keeler on Owens Lake at the southern end of Owens Valley. This not very profitable line made the trip three times a week.

In 1905 the **Bullfrog-Goldfield Railroad** was incorporated, and construction was completed to Rhyolite by May 22, 1907. The **Tonopah and Tidewater** connected Tonopah to Bullfrog and had a connection at Beatty to the **Las Vegas and Tonopah Railroad** which in turn met the **San Pedro, Los Angeles, and Salt Lake City Railroad**. The Tonopah & Tidewater ended at Sodaville where it connected to the Carson & Colorado. Thus it was possible to go from Las Vegas to Keeler by changing several times to connecting trains. In theory agricultural products could be shipped on the Carson & Colorado from Owens Valley to Sodaville, Candelaria, Tonopah, Goldfield, Rhyolite, and Beatty. In addition, the Tonopah & Tidewater had a connection to Los Angeles.

The distances connecting the Nevada mining towns to urban centers are worth noting. The Tonopah & Tidewater Railroad ran 436 miles from Los Angeles to Goldfield. Going from Los Angeles via the Las Vegas & Tonopah Railroad made the trip 531.1 miles. The Tonopah & Goldfield Railroad connected Goldfield to San Francisco, 518 miles away.

At this point three counterfactual questions may be asked to determine the "*might have been*" of history. First, if Los Angeles decided not to pursue an aqueduct from the Owens River, would Owens Valley farmers become an important supplier of agricultural commodities (wheat, cattle, produce, etc.) for the Nevada boom towns? Second, what would have happened to the economic promise of Owens Valley if the boom towns suddenly declined? Third, if the boom towns did not go bust, would they have depended more on agricultural products and supplies from other areas such as Los Angeles and Salt Lake on the San Pedro, Los Angeles, and Salt Lake Railroad?

Reality must intrude on these speculative questions. Los Angeles did build its aqueduct, though its negative effect on Owens Valley agricultural production would not be felt until the 1930s, by which time Los Angeles had purchased some 300,000 acres, almost all the valley's land base. At Bullfrog, where gold was discovered in 1904, the town was almost empty by 1907. Rhyolite, with $3.1 million taken from twelve mines after gold was discovered in 1904, had 6,000 residents in 1907. Three years later there were 675, and by 1922 only one person. Candelaria, established in 1879, was already past its heyday in the early 20th century, and by 1920 fewer than twelve people lived there. Goldfield, founded in 1902, took out $11 million in gold at its peak, but in 1912 the pickings were down to $5 million, to $1.5 million in 1918, and only $750,000 the next year as the mines played out. Sodaville met a similar fate. Tonopah, with the strike of silver in 1900, managed to survive, with a current population of 3,000 people who derive their income not from mining but from tourism and the payroll at nearby Nellis Air Force Base. *(continued on page 8)*

Owens Valley as Breadbasket for Nevada's Gold Towns

(Continued from page 7)

The third question, as to whether the Nevada mining towns really needed Owens Valley agriculture, is speculative, since the towns declined and Owens Valley agriculture never really developed. The taking of Owens River water by the City of Los Angeles has been the stuff of movies (Chinatown) and fans of conspiracy theories. Much of the writing on this topic is polemical and based on either poor research or a lack of it. **An objective understanding requires that the student of history attempt to view the events of the past not from hindsight but from the viewpoint of the participants.** In effect, people in Los Angeles, Owens Valley, and the Nevada boom towns could speculate about their future, but no one had a crystal ball.

Los Angeles residents in 1905 knew that their city could not sustain its continuing growth without a reliable water supply. Such a supply was not available from local water sources; the Los Angeles River could service not more than 250,000 people, and the city's population was already close to that figure and still climbing exponentially. William Mulholland, chief engineer of the city's Bureau of Water Works and Supply (now the Department of Water and Power), identified the Owens River as a viable source because its elevation would result in an energy-saving gravity-flow aqueduct. President Theodore Roosevelt agreed and in 1906 granted a right-of-way across public land to facilitate the construction of the aqueduct to Los Angeles. Two bond issues, approved by a large majority of Los Angeles residents, provided $23 million for construction of the project. By 1913 the aqueduct was completed.

Owens Valley farmers were under the impression that the U.S. Reclamation Service was conducting preliminary surveys for a reclamation project in the Owens Valley area. This supposition has confused some writers who have argued that such a project was in the making and thwarted by the machinations of Los Angeles politicians and businessmen. However, the Reclamation Service, created in 1902, was already overextended by 1905 in conducting preliminary surveys, in that many more surveys were being conducted in the West than the agency could construct, given the limits of its budget. When Los Angeles officials promised that the aqueduct would be a municipal rather than a private (for profit) project, the Reclamation Service acquiesced and did not go further in the Owens Valley than its preliminary survey.

Key to the Los Angeles project was the purchase of water rights to the Owens River from local farmers. In an act that subsequently aroused tremendous controversy, former Los Angeles Mayor Fred Eaton, who had purchased property in Inyo and Mono Counties, bought up the rights while not revealing he was acting for the City of Los Angeles. Many of the farmers were understandably angered when it was revealed they had sold the rights to the City of Los Angeles, but the city defended its position by noting that were the purchaser known, the farmers would have jacked up the price.

Why were the farmers willing to sell their water and, eventually, their land rights in the first place? Before answering this question, it should be noted that Los Angeles in 1904-05 was purchasing rights in the southern half of Owens Valley, south of Lone Pine (where the aqueduct diversion intake would be constructed). This was a marginal area for agriculture. As Gary Libecap observes in his recent book, Owens Valley Revisited, "Unless a farm was along a ditch or riparian to the Owens River or a dependable feeder stream, of which there were few other than Bishop Creek in Owens Valley, sustained agriculture was not possible in the arid region" (p. 51). *When offered a price for water rights that exceeded what they might make in a marginal area, farmers cut a better deal than farming would have brought them.*

Owens Valley's most productive agriculture in 1905 took place in the northern half of the valley, where Bishop's population exceeded that of Independence, the county seat, to the south. But agriculture in Owens Valley had its own set of problems, north as well as south. The northern half of the valley had a high water table, limiting the amount of arable land. Inyo County farms were smaller on average than such Nevada counties as Churchill, Douglas, and Lyon: 269 to 713 acres in 1920. The valley's growing season was only 150 days. The Reclamation Service project, had it been constructed, would have been in the northern part of the valley, already largely under private ownership, than in the southern half, a contradiction in the goal of the Reclamation Service to reclaim arid lands. *As for Los Angeles's alleged ruination of Owens Valley, the real conflict between city and valley did not begin until 1923, a full decade after the completion of the aqueduct*. Up to that point *(Continued on page 9)*

President's Notes

(Continued from page 1)

As an interesting side note, Imperial Irrigation District (IID) did not raise their energy cost adjustment factor. As a result, their bond rating was degraded from AA- to A+, which will increase costs by millions of dollars in total interest. In response, IID is contemplating restructure of their ECAF rate.

The proposed action was approved by the DWP Board in August and brought by Section 245 action to the City Council in early September for review. The City Council disapproved the action taken by the Department of Water and Power Board of Commissioners. The City Administrative Officer recommended the Council disapprove the ECAF adjustment so that the Board could submit additional information and provide time for additional review. Information should include an ECAF Impact Statement, which shall include the total amount of impact on the ECAF and the projected impact on the typical residential and commercial customers.

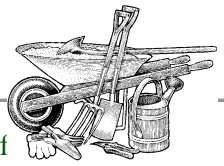
In the motion to disapprove the ECAF adjustment, DWP was asked to work with the CAO and Chief Legislative Analyst to conduct an independent third-party review of the proposed ECAF cap modification. Based on the City Council action and the under collection of ECAF, DWP will be working with the CAO and CLA to revisit how a form of this ECAF will be implemented if the goal of 20% of energy will be generated by 2014 is to be achieved.

≈ WATER SYSTEM ≈

The water system was also under pressure during the past few weeks with a failure of a large 5' trunk line thru Studio City and two other mains in non-related failures. We plan to have a speaker present a report concerning these recent failures in the near future.

I continue to invite all members to become more involved with the work of the Associates. If you have additional thoughts or ideas or just want to come to one of our monthly meetings, please send me a note at HYPERLINK "mailto:irishthomas@prodigy.net" irishthomas@prodigy.net. ✍

Owens Valley as Breadbasket for Nevada's Gold Towns



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most Owens Valley farmers were not affected by the city's land and water purchases. In fact, they profited from selling their agricultural commodities to the workers on the aqueduct, who numbered in the thousands. Nevada boom towns by 1910-12, during the construction of the aqueduct, were already losing population as the mines played out

Willie Chalfant, in his book *The Story of Inyo*, 1933 revised edition, looked back selectively when he asserted that the rapid rise of the mining towns meant "the creation of nearby cash markets which demanded the best efforts of the agricultural lands of Owens Valley" (p. 330). In this instance retrospect was needed, since Chalfant ignored the fact that the boom towns were going bust at the very time that the farmers were selling produce not to Nevada towns but to the aqueduct project.

Examining the "What ifs" of history can be as challenging to students, scholars, and the general public as belief in conspiracy theories (though conspiracies seem to be a lot more fun since they ask people to prove a negative instead of providing evidence to support their arguments). Supporters of the idea that Los Angeles "swindled" Owens Valley farmers out of their water find it convenient to overlook certain statistics. Five towns in Owens Valley—Bishop, Big Pine, Laws, Independence, and Lone Pine—had a total of 7,011 people in 1920. At that time 140,000 acres were under cultivation, with about 30,000 of those acres under irrigation. Most of the land was used for ranching. Access to markets in Nevada was possible through a somewhat roundabout railroad route, but by 1920 almost all of the Nevada boom towns had busted, and with their demise went any promise that Owens Valley could have been their breadbasket. ✍

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