

5 cities cash in on wastewater deal with Palo Verde

by *Shaun McKinnon* - Apr. 1, 2010 12:00 AM
The Arizona Republic

The owners of the Palo Verde Nuclear Generating Station have renewed an agreement to purchase billions of gallons of treated wastewater from five Valley cities but at sharply higher prices that would infuse badly needed cash into ailing municipal treasuries.

The agreement, which will be made public today, would deliver nearly \$1 billion to the cities over the next 40 years. The infusion includes \$30 million in up-front money to be paid over the next four years to repair and upgrade a plant that treats the wastewater. Money from the higher water rates would accrue more slowly based on annual price increases for the next 15 years.

For Palo Verde, which produces more power than any other U.S. power plant, the deal cements access to a predictable water supply through the plant's expected life span. Predictability is critical in the long-term management of a power plant, which uses water to cool the system, and eases the pain of the higher rates, utility officials said.

Securing water for 40 years could also help as federal regulators consider license-renewal applications for the three reactors. The cities lock up a reliable customer and a revenue stream that grows in carefully defined increments, but officials say the benefits reach even further.

"The first thing we wanted to do was make sure the cities felt comfortable that this was the highest and best use of the effluent, and we believe it is," said Phoenix City Manager David Cavazos, lead negotiator among the five cities. "We have interests that are bigger than water. We want to have predictable low-energy costs. We think it's good for everybody."

In addition to the higher water rates, the plant's owners will pay the cities \$30 million over the next four years to improve the 91st Avenue Wastewater Treatment Plant, from where the effluent is piped 36 miles to Palo Verde.

Palo Verde will also relinquish rights to about 8 billion gallons of water each year that isn't being used, allowing the cities to sell it to other users, such as irrigation districts or golf courses. The original allocation set aside more water than the plant needed, but because it was under contract, the cities couldn't offer it to other users.

Terms of the agreement, which took about 18 months to complete, still need final approval from the city councils in Phoenix,

Mesa, Glendale, Scottsdale and Tempe, the five municipalities that own the wastewater plant. Because the cities were involved from the start of negotiations, the councils are expected to approve the final agreement. The deal underscores the growing interest in treated wastewater, which is commonly used on golf courses and other landscaped areas. When Palo Verde started generating power, it paid about \$30 an acre-foot for it. By 2025, the plant will pay \$300 per acre-foot. The current rate is \$53 an acre-foot.

An acre-foot is 325,851 gallons, enough to serve two or three households for one year.

Palo Verde is the only nuclear plant in the world to cool its operations with reclaimed water.

"I don't want to downplay the use of treated effluent for golf courses or riparian needs, but one could legitimately argue from an economic and environmental standpoint that this is the highest and best use of the water," said Marty Shultz, vice president for government affairs for Pinnacle West Capital Corp., which shares ownership of Palo Verde through its Arizona Public Service Co. subsidiary. "We're talking about a power plant that is zero emissions, a power plant that produces power at the lowest rate of any other source."

Most nuclear-power plants are built near rivers or oceans, which provide an immediate source of water. Palo Verde was built in the desert 50 miles west of downtown Phoenix, which meant its operators had to import water.

Treated wastewater was the best option. It would not divert drinking water from homes nor risk depleting aquifers.

Palo Verde's owners, a consortium of utilities including APS and Salt River Project in Arizona, originally secured the rights to 105,000 acre-feet a year, or about 34 billion gallons. The price was set as a percentage of rates charged by the Central Arizona Project, which delivers Colorado River water to Phoenix and Tucson.

At the time, critics said the cities weren't charging enough for the water. The late developer John F. Long unsuccessfully sued to stop the deal, objecting to the rate structure and to the fact that five of the power plant's seven owners were from other states.

"He took the charge to protect the citizens in the Valley to get the proper value from that commodity," his son, Jacob Long, said this week. "The effluent was priced with no escalation . . . and the low price of water was subsidizing electricity in other states."

That first contract would have run through 2027, but both Palo Verde and the cities decided to renegotiate the terms now, extending the agreement through 2050.

"It was a good time to take a look at it," Cavazos said. "At that time, it was a fair market value for water. But with time, with the value of water increasing, it was time to update the agreement and get a higher price."

The price for the water will increase 10.5 percent a year through 2025, starting from the current price of \$53 per acre-foot. In 2026, the rates will be set using a tiered formula, with the cost rising as water use increases.

The contract now sets aside 80,000 acre-feet for Palo Verde, better reflecting the actual water needs of the power plant. The cities can sell the unneeded 25,000 acre-feet.

City officials say consumers will benefit almost immediately. In Phoenix, for example, Cavazos said the new revenue could allow the city to forgo water-rate increases next year.

The utilities, meanwhile, say power users won't see rate increases any time soon, even though the agreement will raise costs of producing electricity at Palo Verde. APS, the plant's operator, said it will look for ways to become more efficient to offset some of the higher costs.

"We're always looking at our water usage," said Randy Edington, executive vice president and chief nuclear officer for APS. "Anything we can do to run more efficiently lets us make better use of our resources."

The tiered pricing system will give Palo Verde an incentive to reduce water use, especially in the summer months, when power demand is at its highest, Edington said.

Utility officials say they believe they're paying a fair price for the water, though setting a value was difficult because no other nuclear plant uses effluent.

"There aren't a lot of comparisons out there, but we believe we found a value point that's manageable for us," said Glen Reeves, power-generation manager for SRP. "We have to have water for that plant to operate, and we have to pay a fair price for it. We can't expect owners of it to give it away."

Republic reporter Ryan Randazzo contributed to this article.

New talks change Arizona Snowbowl's snowmaking source

*Mar. 9, 2010 07:30 PM
Associated Press*

FLAGSTAFF- A new proposal for artificial snow at an Arizona ski resort swaps reclaimed wastewater for more expensive potable water and comes with a pledge from the U.S. Department of Agriculture to help offset the cost.

Under the proposal, the city of Flagstaff would allow reclaimed wastewater to percolate into the ground and be pumped for use at the Arizona Snowbowl instead of shipping the wastewater directly to the resort just outside Flagstaff.

The Arizona Daily Sun in Flagstaff first reported the development on Tuesday.

The proposal has the support of the resort's owner and American Indian tribes who contend spraying the San Francisco peaks with snow made from reclaimed wastewater would desecrate the mountain they hold sacred. But Arizona's two U.S. senators called the proposal inappropriate and a waste of taxpayer money.

In a news release Tuesday, Flagstaff officials said the proposal would not affect drinking water supplies during the months that the Snowbowl receives the water and would have no financial impact to the city or its water customers.

The city council would have to vote on the proposal in a public meeting before it could move forward. The current contract provides for 1.5 million gallons of reclaimed wastewater per day to be delivered directly to the Snowbowl from November through February.

Snowbowl owner Eric Borowsky estimated the additional costs of using groundwater versus reclaimed wastewater at \$4,000 a year in pumping that the resort would pay. The USDA would help offset the cost of the project by committing its own resources or seek other federal funds.

U.S. Sens. John McCain and Jon Kyl said in a letter to Agriculture Secretary Tom Vilsack this week that they will object to any attempt to secure an earmark or congressional approval of the proposal they believe disregards Arizona's water management challenges and violates court decisions.

The Navajo Nation and other tribes lost a yearslong battle last year when the U.S. Supreme Court turned down their final appeal against using treated wastewater to make snow. The USDA withheld permits for the construction of snowmaking equipment while trying to forge a compromise among the parties.

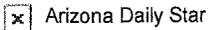
Vilsack told Flagstaff Mayor Sarah Presler in a January letter that he believes the latest proposal satisfies the primary needs of all the diverse interests and also a need to create jobs.

Among other proposals was that the Navajo Nation purchase the Snowbowl for an estimated \$50 million, but that never came to fruition. The Arizona Snowbowl Limited Partnership purchased the ski resort in 1992 for \$4 million.

Snowbowl officials have maintained that man-made snow is necessary to ensure the survival of the ski resort, which opened in 1937 on Forest Service land and has struggled with short seasons because of a lack of snow.

Navajo lawmaker Raymond Maxx said tribal officials stressed the idea in talks with city officials that selling reclaimed wastewater to the Snowbowl would jeopardize their relationship. The proposal to switch to groundwater is a sign of respect, he said. "At least groundwater would be natural water."

A pending lawsuit in federal court in Arizona contends the Forest Service failed to consider the human health risks of ingesting artificial snow made with reclaimed wastewater. But an attorney for the plaintiffs, Howard Shanker, said using groundwater would eliminate some of those concerns.

 Arizona Daily Star

EPA agrees to examine ways states can curb ocean acidity

Posted: Friday, March 12, 2010 12:00 am

SEATTLE - The U.S. Environmental Protection Agency said Thursday that it will consider ways the states can address rising acidity in oceans, which poses a serious threat to shellfish and other marine life.

The agency's decision was announced in a legal settlement with the Tucson-based Center for Biological Diversity. The environmental group sued the EPA last year for not requiring Washington state to list its coastal waters as impaired by rising acidity under the Clean Water Act.

"It's one of the most important threats to water quality right now," said Miyoko Sakashita, a senior attorney at the group's San Francisco office. "It's affecting waters around the world, and it's particularly stark in the waters off the West Coast."

Oceans are becoming more acidic as they absorb excess carbon dioxide from the atmosphere - a problem Sakashita referred to as "global warming's evil twin."

The changing chemistry of the waters affects many types of sea life, but especially anything that grows a shell or hard covering. Some scientists believe it is likely to blame for die-offs in Northwest oyster stocks over the past several years.

"Protection of the nation's water quality, including the health of our ocean waters, is among EPA's highest priorities," the agency said in a statement. "EPA is interested in learning more about how to protect our ocean and coastal waters from acidification."

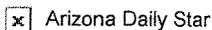
Previously, states have taken steps to address rising acidity levels in lakes and streams under the Clean Water Act, but this is the first time the EPA has agreed to consider ocean acidity. The Center for Biological Diversity is petitioning each coastal state to address the issue, Sakashita said.

In the settlement agreement, the EPA said it would take public comment on the increasing acidity of oceans, on ways states can determine if their coastal waters are affected, and on how states can limit pollutants that cause the problem.

Such measures could include regional cap-and-trade systems to limit carbon-dioxide emissions from the burning of fossil fuels or requiring industrial plants to reduce their emissions as a condition of any discharge permits granted under the Clean Water Act, Sakashita said.

She compared it to the way the states have used the Clean Water Act to regulate mercury emissions and acid rain.

The problem is global, she said, but any steps toward reducing emissions help.



Will test 5 prototype technologies for a year before it makes choice

Rosemont considers solar to power its HQ

Tony Davis Arizona Daily Star | Posted: Sunday, March 21, 2010 12:00 am

The company proposing the Rosemont Mine has ambitious plans for solar energy at its site in the Santa Rita Mountains southeast of Tucson.

Rosemont Copper hired a consultant to develop a blueprint to power its main administrative building and other site buildings. That would be the largest array of solar panels at a Tucson-area business and the second-biggest individual solar facility in the metro area.

DLM-LLC Associates, a local startup consulting firm, will seek proposals in April from a host of solar installers around the state to design and test five prototype solar power technologies. It will select winners on July 30.

The copper company will spend \$500,000 to test the prototypes for a year on its property, a few miles south of the site of its proposed open pit mine. Then Rosemont will pick one or more plans.

The company hopes to start operating the mine by 2012 but it could be delayed by local opposition.

Jamie Sturgess, the mine's vice president for sustainability, said the copper company is following the consultants' recommendations in testing several technologies.

"I'm just proud to say that they are local guys. They have built solar facilities in Arizona. We think it is a sound recommendation, to spend a half-million early in the process to put these panels in and get them tested. That will justify a final decision for a (solar) project 10 times the size and 10 times the investment in the future," he said.

The copper company wants to demonstrate that in "every bit of our technology, we are using the most progressive sustainable technology you can find," said Sturgess.

Other examples include its plans to build a pipeline to take and recharge Central Arizona Project water into the ground to replenish groundwater pumped for the mine, and the use of a dry-stack tailings system to prevent liquids from seeping into groundwater. It also plans to use gearless motors to power its mills because such motors use less energy, he said.

Asked if company officials want solar energy mainly for substantive or for image purposes, Sturgess said, "That is probably a question without an answer. Obviously, we hope to achieve both."

In the Tucson area, the largest individual solar facility now planned is a six-megawatt system under construction that will serve homes at Davis-Monthan Air Force Base. Overall, 1,691 individual solar power systems exist here, 28 for businesses, according to Tucson Electric Power.

A solar facility comparable to Rosemont's will go online next month at Pima County's Roger Road wastewater treatment plant. The city of Tucson has a one-megawatt solar plant ready to start construction in the Avra Valley once legal and financing issues are resolved.

Rosemont could be the first of many Arizona mines to get power from the sun, a top solar researcher said.

"The big things about producing large amounts of electricity from solar is to have land and transmission lines. Mines have both," said Joseph Simmons, director of the Arizona Research Institute for Solar Energy. "If there is going to be a mine, it is better to have solar than if they don't."

But it's a "tough question to answer" whether solar energy should make the mine more acceptable to the public and to officials, said Simmons, who said he is not for or against the mine.

"People should make decisions on mines based on what they feel the environmental consequences will be," Simmons said. "I don't think putting in a lot of solar will change those environmental consequences."

Rosemont's solar plans don't impress Pima County Administrator Chuck Huckelberry, an opponent of the mine.

"A few solar panels won't hide a mile-wide hole in the ground," Huckelberry said of the proposed open pit mine. "This is just an attempt to divert attention from the real issue. A mine in this location is simply not appropriate."

Bob Dame, one of the principals in the consulting firm DLM Associates, said Rosemont is making a significant solar commitment by agreeing to spend so much money up front. The solar testing will serve as a proving ground for other companies wishing to employ solar on a large scale, Dame said.

Although many of the technologies have been tested before, tests at Rosemont will help show how well they can work in Southern Arizona, where heat can degrade photovoltaic equipment.

"There's a lot of talk about solar, but very few businesses are going with it," Dame said. "Some of the solar plans that will come out of Rosemont will be the size that small and medium businesses will use."

In "every bit of our technology, we are using the most progressive sustainable technology you can find."

Jamie Sturgess,

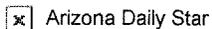
Rosemont Copper vice president

"A few solar panels won't hide a mile-wide hole in the ground."

Chuck Huckelberry,

Pima County administrator and Rosemont Mine opponent

Contact reporter Tony Davis at 806-7746 or tdavis@azstarnet.com

 Arizona Daily Star

Under bill, areas near Tucson would have to shop for supply

Decision on water could hit here hard

Tony Davis Arizona Daily Star | Posted: Sunday, March 21, 2010 12:00 am

Tens of thousands of families from Tucson through Pinal County to Phoenix have been living on borrowed water for years.

Payback time is coming.

The Arizona Legislature is considering a bill that would authorize a little-known agency to sell up to \$500 million worth of bonds to buy new water supplies to serve these suburban residents.

The bonds, ultimately, would have to be repaid by residents.

In Pima and southern Pinal counties, they live in suburban areas that include parts of or all of Oro Valley, Green Valley, Sahuarita, SaddleBrooke, SaddleBrooke Ranch, Red Rock and Tucson's southeast side.

One reason the bill is being seriously considered is that most of these homes have no assured, long-term water supply.

They are being served by a short-term supply that could disappear in a few years to a decade from now because legally, it belongs to somebody else.

Issues raised

The debate on the bill has unearthed some long-simmering issues swirling around the three-county Central Arizona Groundwater Replenishment District.

The district has signed up more current and future housing developments in Pima, Pinal and Maricopa counties than it has long-term water supplies for.

By 2025, it will be legally bound to provide more renewable water supplies to its customers than the city of Tucson would be serving.

The legislation has stirred fears that customers in the district will ultimately be subject to "rate shock" once the water supplies are on line and the bills come due.

Today, no one knows for sure when the district would acquire water, where it would come from, what it would cost or what the repayment terms would be.

Among possible sources are farmers along the Colorado River, treated sewage effluent, desalination of seawater or salty, brackish groundwater, or rural areas that have groundwater supplies.

The only thing that's clear is that the cost would be higher than the district's current water supplies from the Central Arizona Project, which uses Colorado River water brought by canal.

But backers of the bill say the measure is aimed at preventing what one critic calls an economic "time bomb" from going off, by spreading the costs of new water over a long repayment period.

law set limit

The need for more water springs from a long-standing problem in enforcing a key measure of the state's pioneering 1980 Groundwater Management Act.

As a way to keep development from sucking away the state's dwindling groundwater reserves, the law required that new growth within state water management areas in Tucson, Phoenix and Pinal County, among other places, prove an assured 100-year water supply. At the time the law passed, it was hailed as the toughest of its kind in the country.

But on closer examination, the assured supply law didn't have that many teeth. It allowed new growth if a developer could show that the 100-year supply didn't cause the water table to drop more than 1,000 feet. Since subsidence - sinking of the ground that can lead to cracks and fissures - can occur before that point, critics immediately took aim at the rules. The Arizona Department of Water Resources announced in the late 1980s that it would toughen them by requiring that new developments provide a renewable supply, such as CAP water.

But developers fought back, arguing that the new rules would shut down growth in the very places where the market was pushing it. Those are suburban areas located too far from the CAP canal to make it economical to tap into it.

Higher bills likely

In 1993, developers helped push through legislation creating the Central Arizona Groundwater Replenishment District. That law said a new development could meet the assured-water-supply rules by pumping groundwater, if it joined the district and the district bought and recharged renewable supplies. That was OK even if the recharge - putting water on the ground to seep into the aquifer - occurred miles from where the groundwater was pumped for the houses.

Without the district, "The rules would have stopped virtually all development outside of the boundaries of designated water providers" such as Tucson Water, says Mike Pierce, a water lawyer who has represented developers, cities and private water companies.

"I don't think there was the political will to do that in the state," Pierce recalls, adding, "The rules are good and what they are trying to accomplish is the highest standard in the United States. It is a lofty goal, but it takes effort and money to achieve."

But the replenishment district is a time bomb, likely to erupt in the form of sharply higher water bills once the district buys new supplies, says Priscilla Robinson, a retired environmental activist and consultant for Tucson Water.

"It benefited people who were building houses and wanted to sell the houses. They weren't going to be around when the bills came due," she says.

Creating the district let developers satisfy, in theory, the assured-water-supply requirements, while transferring to a public agency the obligation to come up with the water, adds Robert Glennon, a University of Arizona law professor and a longtime critic of the replenishment district.

Today, the district's water recharge activity is relatively modest - about 40,000 acre-feet annually to serve 96,000 homes statewide, including 26,464 homes in the Tucson area. An acre foot is enough to serve about three households for a year.

But the district expects that obligation to grow rapidly over the coming decades - to 227,000 acre feet annually by 2035.

More than 260,000 homes, the vast majority still unbuilt, lie within the district's boundaries. The district expects to have as many as 340,000 homes by the 2030s.

Most of the district's water supply is called "excess CAP," which is legally owned but not currently used by other governments, mining companies, farms and others. Someday, the water's owners will claim it, and the district won't be able to use it anymore.

borrowed supplies

This problem surfaced at a recent legislative hearing on the bonding measure.

Rep. Daniel Patterson, a Tucson Democrat who ultimately voted for the bill in committee, criticized an attorney testifying in support of the bill for not discussing the need to make better use of existing water supplies.

"We don't have water supplies; that's the problem," answered Suzanne Ticknor, an attorney for the Central Arizona Project, the replenishment district's parent agency. The replenishment district "is operating now on borrowed supplies," she said.

Some of the excess CAP water now available to the district could be cut off sooner than expected, if a CAP shortage is declared, which the project's staff says could occur as soon as 2012.

"If there is a shortage, we don't fill all the pools, and the board will make a decision on which pool to fill," says Tom McCann, an assistant general manager for the project.

Bonding authority

Whether the bonding bill is the best solution is a question dividing even environmentalists, who have long disliked the replenishment district.

The bill would double the bonding capacity for the CAP and the replenishment district from \$250 million to \$500 million.

The soonest bonds could be sold would be in two or three years. District director Cliff Neal says the district is not about to go out and spend \$500 million right away. First, it would have to decide which supplies to target, and it would buy the water in phases as needed.

But because the district needs the new water supplies in any case, the bigger question surrounding the bill is whether the financing will be done upfront or over time, which costs customers less now, Neal says.

Charging the tab to the homeowners amounts to a subsidy for developers of subdivisions within the district, says Nancy Freeman, a Green Valley water activist, because the developers never had to pay up-front. She says the bill should not be passed until it's clear how much homeowners will have to pay.

To law professor Glennon, the timing of buying the water - years or decades after the developments were approved - is troublesome.

"People who bought the land will get a bill somewhere down the road for expenses that they never much thought about, and there's no way they could even calculate it," he says.

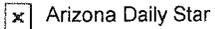
There's no way to protect current homeowners from the effects of decisions made nearly 20 years ago to form the replenishment district, environmentalist Robinson says.

"We can't protect people from reality," she says. "Reality is going to bite."

WHERE THE PROPOSAL STANDS

The state Senate passed the bonding bill for the Central Arizona Groundwater Replenishment District by a 24-6 vote Feb. 15. The House Water and Energy Committee approved it 7-0 Feb. 25. It's awaiting action on the House floor.

Contact reporter Tony Davis at 806-7746 or tdavis@azstarnet.com

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UN: Bad water kills more than war

Posted: Tuesday, March 23, 2010 12:00 am

More people die from polluted water every year than from all forms of violence, including war, the United Nations said in a report Monday that highlights the need for clean drinking water.

The report, launched Monday to coincide with World Water Day, said an estimated 2 billion tons of wastewater - including fertilizer runoff, sewage and industrial waste - is being discharged daily. That waste fuels the spread of disease and damages ecosystems.

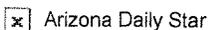
"Sick Water" - the report from the U.N. Environment Program - said that 3.7 percent of all deaths are attributed to water-related diseases, translating into millions of deaths. More than half of the world's hospital beds are filled by people suffering from water-related illnesses, it said.

"If we are not able to manage our waste, then that means more people dying from waterborne diseases," said Achim Steiner, the U.N. undersecretary general and executive director of UNEP.

The report says that it takes 3 quarts of water to produce 1 quart of bottled water, and that bottled water in the United States requires the consumption of 17 million barrels of oil yearly.

Improved wastewater management in Europe has resulted in significant environmental improvements there, UNEP said, but dead zones in oceans are still spreading worldwide. Dead zones are oxygen-deprived areas caused by pollution.

"If the world is to thrive, let alone to survive on a planet of 6 billion people heading to over 9 billion by 2050, we need to get collectively smarter and more intelligent about how we manage waste, including wastewaters," Steiner said.

 Arizona Daily Star

EPA tightening standards on 4 water contaminants

Posted: Tuesday, March 23, 2010 12:00 am

WASHINGTON - The Environmental Protection Agency is tightening drinking-water standards to impose stricter limits on four contaminants that can cause cancer.

In a speech Monday, EPA Administrator Lisa Jackson said the agency is developing stricter regulations for four chemical compounds: tetrachloroethylene, trichloroethylene, acrylamide and epichlorohydrin. All four compounds can cause cancer.

Trichloroethylene, also known as TCE, and tetrachloroethylene are used as industrial solvents and can seep into drinking water from contaminated groundwater or surface water. The other two compounds are impurities that can be introduced into drinking water during the water-treatment process.

Jackson said the EPA will issue new rules on TCE and tetrachloroethylene within the next year. Rules for the other two compounds will follow.

Jackson spoke Monday to the Association of Metropolitan Water Agencies. She called for greater collaboration among states and the federal government, as well as for technologies to meet the needs of water-stressed communities.

EPA's current approach is focused on detailed assessments of individual contaminants and can take many years, Jackson said, resulting only in "slow progress."

DID YOU KNOW

TCE contamination was found in Tucson in south-side wells in 1981. The wells were then shut down. The trichloroethylene, or TCE, was an industrial cleaning chemical used to remove grease from airplanes in previous decades.

More than two decades of litigation over the groundwater contamination followed.

About 1,600 residents who said they suffered illnesses related to the contamination won an \$85 million settlement from Hughes Aircraft Co. in 1991.

Source: Star archives

 Arizona Daily Star

Contrasting views on what to do about dwindling water

Tony Davis Arizona Daily Star | Posted: Tuesday, March 23, 2010 12:00 am

Philip Fradkin, now 75, has written 11 books, shared in a Pulitzer Prize for coverage of Los Angeles' Watts riots, spent six months covering the Vietnam War and was a pioneering environmental reporter.

But he's best known for "A River No More," a 1981 book about the Colorado River. It was a history and a warning about the source of Tucson's drinking water and the West's lifeblood.

He predicted that the river could run out of water by 2000. That didn't happen, but he was on target in his concern that the river's supplies were stretched too far among too many people.

Today, there is a possibility of near-term shortages for the Central Arizona Project - which top state water officials said in the 1980s wouldn't happen for at least another 20 years - shortages that could be worsened by climate change.

Fradkin was interviewed while in Tucson recently at the Tucson Festival of Books.

Q. What led you to write "A River No More"?

A. I knew the river knit the West together. I thought it was a tremendous way to give a portrait of the region and hook it on the river as a lifeblood, a dying lifeblood. The title came from the fact that the river no longer reached the Gulf of California because all of it was used upstream.

Q. Why did you predict that this river would ultimately run out?

A. The predominant thinking at that time was that we had enough water to last forever. They were just winding up the last major projects on the river, and the feeling was that the river would supply CAP once it got going and there would be enough water left for California and for the river's upper and lower regions.

Certainly in terms of the government, nobody had put the whole river together and seen the demands on it and seen the amount of water that was and wasn't there. No one had ever taken into account the fact that when the Colorado River Compact was put into place in 1922, it was based on a series of very wet years, and that the tree rings showed that even now, 30 years later (after the book), you can see the up years and down years.

I felt out on a limb. Nobody else was saying this. But if you added up the facts and looked at the river as a whole, you couldn't help but come up with this.

Q. Today, do you feel vindicated by what's happened with the drought?

A. No way. . . . I think vindication is a sign of large ego. The vindication is not personal. It is watching the continuation of the same kind of boom-and-bust development and the overuse of water in the West - it's the vindication of history. I only act as a narrator.

Q. Did your book influence the views of water-policy makers? Were you trying to influence them?

A. They're set in their ways. The book didn't change their thinking. Back then, nobody paid attention to me, and I was only one small voice.

Also, I wrote the book to tell a story. I think that people can take that story whatever way they want. I don't write books to teach a lesson or preach, or club them over the head.

Q. What do you think will happen next with water in the West?

A. I don't see any change in the historic approach to the use of resources in the American West. The West has not shown a tendency to become like Europe, with one nation. It's a fractious collection of warring entities. . . . If the West is to survive as an entity, it has to survive as a whole, not a bunch of babbling voices crying out to find a solution to their perceived needs.

Q. If Australia and the Middle East can keep going with desalination, use of rainwater and other schemes, why can't we?

A. No civilization lives forever. You can read the Jared Diamond book "Collapse," and watch what happened when nations as a whole start spending an increasing amount of money on warfare, not defense, but warfare. The Roman Empire did, too. Once you get hooked to that, you can't do much for domestic issues.

It takes money to build and run a desalination plant. It takes money to build and run the Central Arizona Project aqueduct. It takes money to maintain highways.

As you travel our highways, you see them increasingly deteriorated. You've gone to war, and you don't see the resources. I watched that happen from Vietnam to Afghanistan and beyond.

ANOTHER VIEW

Priscilla Robinson, a retired Tucson environmental activist and water consultant, is more optimistic than Philip Fradkin. She sat in on the negotiations in the 1980s and '90s for many of the agreements that shaped Arizona's water policies. She says:

- No knowledgeable person in Arizona water politics thought the CAP offered enough to last forever. Officials have spent the past two years in an intense search for new water sources.
- During the 1980s and 1990s, officials focused on increasing efficiency in water use and were not complacent about water.
- Increased development and water overuse aren't synonymous: "Overuse of water is using more water than necessary to accomplish something. This part of the story - dealing with this problem - is a success."
- The politics of the West is very much based on the sovereignty of states. It's hard to imagine Nevada and Montana and Colorado, let alone Arizona, agreeing to turn basic decisions about water over to a regional, or worse, federal, authority.
- Investment in infrastructure and water storing varies wildly among jurisdictions regions and states. Tucson Water has in place enough infrastructure to use or store all of its CAP allocation.

Contact reporter Tony Davis at 806-7746 or tdavis@azstarnet.com

The Washington Post

Kennecott says no federal permit needed for mine

By JOHN FLESHER

The Associated Press

Wednesday, March 24, 2010; 9:08 PM

TRAVERSE CITY, Mich. -- Kennecott Eagle Minerals Co. said Wednesday it no longer needs federal authorization for a nickel and copper mine in Michigan's Upper Peninsula and the way is clear to begin construction of the bitterly contested project after eight years of preparation.

But an official with the Environmental Protection Agency said Kennecott might be speaking too quickly.

EPA has not decided whether Kennecott is correct in its claim that by changing the design of a wastewater disposal system, the company eliminated the requirement for a permit, said Steve Roy, a geologist with the agency's regional office in Chicago.

"This is still being considered by the EPA," Roy said. If the company starts building the mine before the government reaches a decision, "they obviously are at some risk," he said. "We were quite surprised to hear about this."

Kennecott notified EPA on Wednesday it was withdrawing its application for a permit for underground discharge of treated wastewater from the mine planned for rural Marquette County,

spokeswoman Deb Muchmore said.

Previously, the company agreed it was legally required to get a permit because it planned to inject the treated water back into the groundwater through a network of soil-covered infiltration pipes.

Kennecott announced a new plan this month that calls for keeping the pipes on the surface and covering them with Styrofoam insulation and a liner. The treated water still would be pumped into the groundwater. But because the pipes no longer would be underground, the company's legal advisers believe federal permission is unnecessary, Muchmore said.

"The company is confident it has all the permits required for construction and operation of the mine," she said.

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The Washington Post

Kennecott says no federal permit needed for mine

Kennecott, a subsidiary of London-based Rio Tinto PLC, is targeting a six-acre underground deposit expected to yield 250 million to 300 million pounds of nickel and about 200 million pounds of copper. It would be the nation's only mine where nickel is the primary mineral extracted.

The company discovered the ore body in 2002 and submitted a state application in 2006. State regulators issued permits the next year, but legal challenges have delayed the project. Environmental activists contend it would pollute groundwater in the isolated Yellow Dog Plains area, while the company says it can build and run the mine safely.

Muchmore said Kennecott redesigned the wastewater system to cut red tape and get the project going. Even after construction begins, it will take three to four years to prepare for mining, she said.

In a letter Monday, Kennecott general manager Jon Cherry formally notified the state Department of Natural Resources and Environment it had obtained all necessary permits and was "now in a position to move ahead" with mining activities on land leased from the state.

Lynne Boyd, chief of the DNRE's Forest Management Division, responded with a

letter authorizing the company to proceed. But spokesman Robert McCann said if it turns out Kennecott still needs an EPA permit, the company would be in violation of the lease.

"For Kennecott to self-proclaim that they do not need the federal permit is clearly overstepping the bounds of what is proper," said Michelle Halley, attorney for the National Wildlife Federation, which is suing to block the project.

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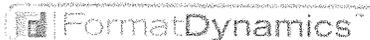
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GREEN VALLEY NEWS AND SUN

LETTERS

Guest Commentary: Record set at haz-waste event

[Print Page](#)

By H.L. "Rich" Richey

Published: Tuesday, March 30, 2010 8:39 PM MST

The spring 2010 household hazardous waste collection scored a new high in the number of cars served as well as number of participating households: 706 vehicles brought in waste from 748 homes.

That's a 15 percent increase over the previous record in 2009.

Notably, newcomers to the household hazardous waste (HHW) collection event outnumbered previous users 400 to 306. More than half the people got their information about the event from the Green Valley News.

The road signs brought in the next group and flyers, Green Valley Community Coordinating Council, radio and miscellaneous accounted for the rest.

The total weight of "collectibles" was 20,150 pounds. The "heavy hitters" were paints at 13,350 pounds, used oil at 1,300 pounds and aerosol cans at 1,200. Thirty-two automotive batteries were turned in totaling 800 pounds.

RISE Electronics Recycling joined us to receive unneeded TVs, PCs, monitors, stereos, printers, cell phones and the like. RISE is the only not-for-profit electronics recycler in the area.

The first participation of sheriff's deputies managing the collection of expired medications saw three 55-gallon containers filled.

In the routine emptying of the Dispose-a-Meds containers in each of the fire stations, the contents will be turned over to the deputies who will see to their proper disposition.

This semi-annual household hazardous waste collection event is a cooperative effort of the Pima County HHW Program and GVCCC.

Volunteers from the Green Valley Marines and Born Again Jocks Association (BAJA) handle the unloading and separation of wastes and the Sheriff's Auxiliary Volunteers manage traffic control. Valley Presbyterian Church lends the use of their parking lot.

This event is a major benefit to Green Valley in that it prevents dangerous material from contaminating our aquifer.

Because of Pima County budgetary contraction, however, the program is in danger of suspension.

Activism by Bill Katzel helped save it once, but it may take other community voices to keep it going next time.

Let the county know your feelings.

H. L. "Rich" Richey is a retired United States Marine Corps lieutenant colonel who lives in Green Valley.

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Tucson Weekly

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CURRENTS - CURRENTS FEATURE

April 01, 2010

Borrowed Money

Ray Carroll's outspokenness about county debt may be leading to animosity

by Dave Devine

A policy disagreement over Pima County's debt has apparently become personal.

Supervisor Ray Carroll says a member of the county's Bond Advisory Committee has filed a complaint against him with the Arizona Attorney General's office in retaliation for his outspokenness on the debt issue.

A spokeswoman for that office declined to comment, and the person who Carroll claims filed the complaint didn't respond to e-mail messages from the *Tucson Weekly*.



click to enlarge

Ray Carroll says Pima County's debt is a concern because it's "enormous"



"I'm not doing this to be dramatic," says Carroll, a self-proclaimed fiscal conservative, about his outspokenness. "This is important."

Carroll calls the county debt "enormous" and says it needs to be a high-profile issue.

"The way the county is financed is a house of cards," he suggests. "My biggest concern is the debt is getting in the way of (providing) public health and safety to residents."

That dire opinion certainly isn't shared by Pima County Administrator Chuck Huckelberry.

"When you look at general-obligation bonds authorized by the voters, those (secondary property taxes which pay for the bonds) can't be used for law enforcement ... so they clearly don't impact one another," Huckelberry says.

His general philosophy toward the county's debt, Huckelberry says, is simple: "It's not how much the debt is. It's how you manage it."

This financial back-and-forth over the debt has been underway for several months. After Carroll raised questions about it during a meeting last fall, Huckelberry responded in a November memo. (This and other communications on the issue are available through links on the county's homepage at www.pima.gov.)

In his memo, Huckelberry pointed out the county's stable bond ratings. Then, replying to Carroll's assertion that Pima County's "current outstanding principal debt is almost twice as large as all other Arizona counties' debt combined," Huckelberry explained that no other county operates a major regional wastewater-treatment system, or has issued highway-revenue debt.

In the same memo, Huckelberry says that the total county debt was \$757 million. This figure includes \$348 million in general-obligation bonds, which require about \$40 million in annual property-tax repayments.

In addition to this voter-approved debt, revenue-bond debt for sewers and highway work totals \$380 million. Plus, there is \$29 million for "certificates of participation," or non-voter-approved debt, the repayment of which comes out of the county's general-fund budget.

Huckelberry also outlined what he saw as advantages to bonding. These included the implementation of public

improvements that create construction jobs. The current low cost of borrowing was listed as another benefit, as was the ability to have future residents pay some of the cost of current projects.

Carroll disputed that last assertion in a response to Huckelberry. "It will not be 'growth' that pays all this debt," Carroll wrote. "It will be our current residents and their children who will pay the bill (assuming they can afford to continue to live in Pima County)."

Carroll also pointed out that Huckelberry cited three different figures for the county debt in his memo, with the highest number being \$1.7 billion.

As one alternative to all this borrowing, Carroll suggested a "pay-as-you-go" approach, "at least until some of our debt is paid down."

Huckelberry replied in late December. "Under the constitutional limitations on expenditures," he noted, "a pay-as-you-go system cannot work in Arizona."

He also explained the various debt figures in his previous memo. One number, he wrote, was principal only, while another included 15 years of interest.

Regarding growth possibly paying for debt, the county administrator added: "New residents who move here during the debt-retirement period do partially help pay for the cost of facilities that serve them."

However, during a recent interview, Huckelberry acknowledged that few new residents have moved to Pima County lately. He says the past couple of years have seen less than a 1 percent annual increase in population, compared to a typical 2.5 percent rate.

Huckelberry believes that by the end of next year, however, the county should return to normal rates of population growth.

The day after Huckelberry sent his December memo, Carroll replied. Carroll said that he supported voter-approved bonds in the past, but opposed certificates of participation that don't require voter approval.

That opposition, Carroll said, includes a proposed \$812 million to pay for upgrades to the county's wastewater-treatment plants. To finance this debt, supervisors recently approved raising sewer rates 10 percent in each of the next four years. In the past, revenue bonds to cover the cost of the upgrades would have been put before voters for approval. (See "Holy Crap!" Jan. 29, 2009.) But in this case, nonvoter approved "sewer revenue obligations" would be used to implement the changes that supervisors have repeatedly been told are legally mandated.

"It's not as urgent as Huckelberry makes it out to be," Carroll suggests of the wastewater-treatment upgrades.

At the same time, Carroll hopes to get the public more involved in addressing the county debt situation.

"If Barack Obama wants a deficit commission," the Republican supervisor says, "why don't we put a commission together today (here in Tucson)?"

"It would be great to have citizens start poking around (the county debt and budget). We need to get the public involved in the process, because it's going to be a really tough year."

Next week: prospects for a county general-obligation bond election.

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