County funds 2 GV projects

By Philip Franchine, www.gvnews.com | Posted: Saturday, May 21, 2011 2:32 pm

The Sahuarita landfill and the household hazardous waste program, two items the Green Valley Council has supported, will receive continued funding in the $1.3 billion Pima County budget proposal that won tentative approval last week.

The new budget calls for a county tax rate increase of about 3 percent that should be offset for most homeowners by a 7 percent tumble in average property values, the GVC Board of Representatives was told Thursday by Tom Ward, an aide to Supervisor Ray Carroll. Tax bills are computed by multiplying the tax rate by the assessed value. The county rate is only a portion of the entire tax bill.

The supervisors' action Tuesday sets a spending limit and the final budget will be set June 21. The proposed budget includes a tax rate increase of 10.45 cents per $100 assessed valuation on the current county rate of $3.31, a rate increase that would show up on tax bills mailed this fall.

Figures from the county assessor show that property values will drop again next year, Ward said.

Carroll opposes the tax rate increase, arguing that cutting the county's planned surplus of $37 million in half would allow for a slight cut in the tax rate.

Aside from that, Carroll praised the budget by County Administrator Chuck Huckelberry, in part because law enforcement and the court system did not suffer major decreases.

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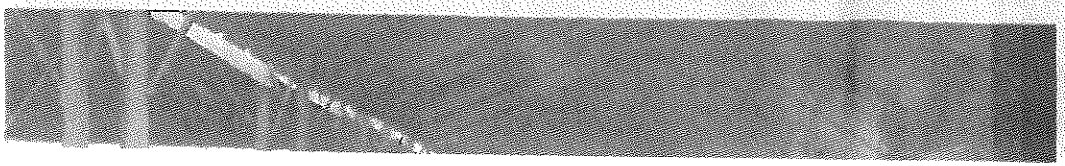
LASSO THE MOON - A CELEBRATION OF COMMUNITY

Chuck Barth/Marana Weekly News

large crowd gathered at the main entrance for a ribbon cutting and grand opening of the Marana Health Center aturday evening. After the ceremony out front the crowd headed to the rear parking lot for a dinner celebra-on.



Pima County to Challenge SB 1171

By Chuck Barth

MARANA — The Pima County Board of Supervisors decided last week to challenge Senate Bill 1171 in court. The new law, signed by the governor last month, allows municipalities within Pima County to organize and start their own sewer system separate from what the county may be planning.

The county contends that if allowed to stand SB 1171 would destroy the cost saving capability that the county offers in the scale of providing sewer services. They also claim that if faster growing municipalities decide to set up their own sewer systems there would be little incentive to continue to expand the existing water treatment system.

Another example of what is driving the county to seek relief in court is the existing wastewater treatment facility in northwest Marana. According to the wording in SB 1171 that facility would be turned over to Marana for the cost of existing debt on the plant.

Pima County is the only county in the state of Arizona with this type of power. Legislators from District 25 and 26, which represent Marana, were sponsors of the bill.

"We're trying to ensure that Marana has the autonomy to do what it feels will fit in wastewater in its development and not have to cow tow to Pima County, their board of supervisors and their administrator," said District 26 State Representative Vic Williams. "From what I can see the lawsuit is baseless, but we'll see and the court system will ultimately flush that out."

It is expected that newly elected Attorney General Tom Horne will defend the states position in the case.

As for Marana, Deputy Town Manager Del Post said that he's sorry that the town can't sit down and work something out with the county.

An earlier court case pleased neither the town nor the county. The town is considering an appeal of that decision. The county has voted to appeal. The ruling said that the northwest sewer treatment plant could not be simply taken over by Marana but the judge also ruled that Pima County cannot provide sewer services in Marana without the town's approval.

That decision may be moot since SB 1171 gives Marana the right to the treatment plant.

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The Range Blog

Water scarcity makes some types of energy less appealing

Newwest.net | May 25, 2011 05:00 AM

By Jeff Thomas

Water and energy have been inexorably linked in human history at least back to ancient Babylonia, where windmills helped power irrigation as early as 1700 BC. Since then, that relationship has become one of the great axioms of the industrial age – that is, it takes great volumes of water to extract and convert energy resources, and often great energy resources to move and treat water.

And in a world in which such resources are under increased pressure, the interconnection between the two – known as the water-energy nexus to some—may never have been more pronounced. That is particularly true in the arid West, where rapidly increasing populations are expected to more than double the need for more power by 2030, which will compete with agriculture and growing municipal use for freshwater supplies.

"I think it's really surprising people about the interconnection," said Tom Iseman, the water program director for the Western Governor's Association. "For a long time WECC (the Western Electric Coordinating Council) has dealt with water supply and power generation scenarios, but this is the first time we have worked on it from a regional perspective."

The numbers can be a little staggering. For instance, the Virginia Water Resources Research Center estimates it takes 60 liters of water to keep a single, 60-watt light bulb lit for 12 hours. Conversely, about 80 percent of the cost for supplying municipal water supply is the power cost for treatment and distribution, according to the Nuclear Energy Institute.

The fact that proposed power plants are finding it difficult to get through water issues in places such as New Mexico and Arizona perhaps isn't startling, but in the last decade the issue is also cropping up in wetter areas of the Rocky Mountain West. Two power plants have been denied permits because of water impact issues in Idaho and the Corette plant in Billings was denied water supply from the Yellowstone

River during critical low-flow months.

"I have talked to a lot of power companies, like Excel, which tell me that they have surplus water rights, but even they are looking at the upcoming constraints from a water perspective (up to and including global warming)," said Stacy Tellinghuisen a Resource Analyst for Western Resource Advocates in Boulder, Colo.

This hasn't escaped the attention of the U.S. Department of Energy, environmental advocates, water resource organizations and the electrical supply organizations of our nation. The DOE has a national program examining issues surrounding the water-energy nexus. WECC, which oversees the grid and electrical reliability over much of the western U.S. and parts of Mexico and Canada, has contracted with the agency's Sandia Lab in New Mexico for a state-by-state examination of where and what future power plants could be located to best serve transmission needs amid decreasing water availability.

The nexus necessarily deals with a large range of environmental issues including clean water and air, carbon emissions, aquatic natural resources, water and power conservation and renewable energy. But for some people, that complexity makes this nexus the Norman McClean poster child of environmental issues—that is: "Eventually, all things merge into one, and a river runs through it."

And that's the primary reason it is the No. 1 issue for Tellinghuisen.

"I love rivers," Tellinghuisen said bluntly. "And I think most water managers recognize that we are now in a zero-sum game. There is no more water available, so it's simply a shift to a new user from an old user.

"The fact that it's a zero sum game makes it even more pressing, but there are solutions that have multiple benefits."

One solution that has little benefit is business as usual, in which traditional coal-fired generating plants consume large amounts of water account for the most of the energy consumed in most western states.

Your run-of-the-mill 500 megawatt coal-fired plant, which could serve a city of about 140,000 people, consumes about 3,500 gallons a minute of water in creating electricity, cooling and air treatment, said Mike Hightower, who oversees research and evaluation of innovative environmental and energy technologies for the DOE's Sandia Lab in New Mexico.

"That's about 5 million gallons a day – the same water consumption as a town of about 50,000," said Hightower, adding that this figure doesn't take into account the water consumed or polluted in extracting and cleaning coal before it is shipped to the power plant, not to mention the carbon load that burning coal puts in our atmosphere.

Other thermal generating plants -- which create steam to move turbines and water to cool the steam—don't get a free pass either. A thermonuclear plant employing the closed-loop cooling technology common to the West consumes slightly more water than a coal plant. That's about 23 gallons of water per day per household, or an additional 30 percent of what that typical U.S. home consumes in water, according to the Nuclear Energy Institute.

But natural gas-fueled power plants consume even slightly more water in steam-powered plants, Western Resource Advocates (WRA) reported, though other natural gas technologies can significantly reduce water consumption. And the generation of natural gas is not without its own additional water and environmental concerns.

Hydrofracking, where water and chemicals are pumped into wells to free the natural gas through

extended fractures in the rock, is now an established norm in the West. That process can consume 3 million to 6 million gallons of water per well, and generates concerns that the injected toxic chemicals may also contaminate ground and surface waters.

The Rocky Mountain West already uses a great deal of water in energy exploitation, WRA reported, as much as 500 million gallons a day for oil and gas recovery. Oil shale recovery has advanced quite a bit in reducing water consumption since the idea was actively advanced in western Colorado in the late 1970s, but will also come with a price.

"Oil shale is looking at consuming about three gallons of water for every gallon of fuel produced," Hightower said. "The projections are for about 1.5 million barrels (of oil) per day, which is about 200 million gallons of water a day. That is about the same as the water consumption for Denver metropolitan area."

In the West, almost all power plants have closed-loop systems for cooling (think cooling towers) rather than once-through systems, which require most water to be withdrawn but don't actually consume as much water.

Few of our rivers could in fact tolerate the warming influence of a once-through system, but there are evolving technologies allowing for dry cooling. The downside? These systems reduce the effectiveness of the power plants and are not very useful in higher temperatures and that's precisely where power needs are growing fastest in the West – for cooling in the summer months.

"The issues are great in the West, but we are also in a good position to make changes," Hightower said. "The renewable side of the equation is very high in the West."

But through the prism of the nexus, even renewable energy has a different focus experts said. In a cursory glance of some of the renewable options:

- Conservation is one area that comes with the least environmental consequence and could play a major role, especially given the municipal water power needs, Hightower said. Conserve water and you conserve energy, and visa-versa. That's especially true in Colorado, where large portions of the water supply for Front Range cities have to be pumped from the Western Slope. And Denver's water is actually much less energy-intensive than desert cities such as Tucson, Phoenix, Albuquerque and Las Vegas.

- Wind energy is also a win-win situation, requiring no water, Hightower said. Of course, fully integrating this resource may require extensive updates to the electrical transmission grid and considerable backup power for when the wind stops blowing.

- Solar energy: If the grid could somehow come to grips with photovoltaic panels on every roof -- and we could all afford to put them there -- this would be a natural, Hightower said. However, large collective solar systems are usually also thermoelectric and can actually outstrip coal, nuclear power and natural gas in water consumption.

- Hydropower: Hydropower from large dams in the West is obviously has its upside in pollution-free power, but it also has an associated water use due to evaporation. Hightower said that experts are also examining the feasibility of generating electricity from existing irrigation systems, which could be a significant power source here in the West.

- Geothermal: Geothermal applications vary greatly in water consumption, according to information

from WRA. Some geothermal projects are very water intensive, but others have low or negligible water consumption.

- Biomass: Once again corn ethanol turns out to be a big loser when water consumption is taken into account. However, Hightower said if water isn't consumed in creating the biomass, for instance with cellulosic ethanol from forests or grasses, the water needs could be greatly less.

For years, energy policy has had little or nothing to do with water policy, or the reverse for that matter, experts said. But according to Iseman, that will likely change as policy makers in the West are quickly coming aware of the nexus.

"I think there going to be some great opportunities to put some better strategies together," he said.

Essays in the Range blog are not written by High Country News. *The authors are solely responsible for the content.*

Originally posted at NewWest.net

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A Just West

The mixed blessings of extra water

Jackie Wheeler | May 27, 2011 05:00 AM

A new addition to the "mixed blessings" file: The town of Payson, Arizona, will soon get relief from its perennial water shortage, having cut a deal with utility power-broker Salt River Project for a share of the water from the nearby C.C. Cragin Reservoir (formerly known as the Blue Ridge Reservoir). You can't blame Payson residents for being overjoyed by this news; they have been living with rigid restrictions such as town-designated "water conservation levels" for some time.

An up side of this enforced community

awareness, however, has been an admirable decrease of nearly 20 gallons per household in daily usage over a ten year period ending in 2006. A visitor driving through the attractive mountain town will indeed notice few lawns and much native and low-water-use landscaping, visible evidence of residents' and businesses' commitment to water thriftiness. It helps that native plants include picturesque Ponderosa pines, Manzanitas, and a nice variety of wildflowers.

In retrospect, it seems kind of silly that the reservoir's water hasn't been available to Payson until now, but its history echoes that of much Western U.S. resource-use history: the mines had a hand in it. In the early 1960s, Phelps Dodge Corporation built the dam on East Clear Creek in a complicated arrangement with Salt River Project in exchange for water rights on the Black River, near its Morenci copper mine in the Eastern part of the state. Once the deal was no longer beneficial for the mining company, they sold the reservoir outright to Salt River Project, which is now free to sell water to the thirsty towns in the region.

Herein lies the mixed blessing. Like many mountain towns around the West, Payson both benefits and suffers from its desirable geography. Only a one-to-two hour drive from the metro Phoenix area, it sees a large influx of visitors, especially in the summer. These visitors now drive the economy of this former logging mill town, providing service industry and other jobs to locals. Many visitors like it so well they buy second homes or retire there, which broadens the tax base and supplies construction jobs but also drives up the median home cost (still an astonishing $221,262 in recessionary 2010) and, of course, increases the demand for water.

Now that there's a reliable supply, will growth increase? Will Payson's admirable conservation practices, developed out of necessity, devolve into the water-hogging ways of other Arizona municipalities, or will the town teach the rest of us lessons in sustainability? Finally, where does this situation fall in the larger ethical debate over exploiting dammed waterways in the first place? Stay tuned.

Essays in the A Just West blog are not written by High Country News. *The authors are solely responsible for the content.*

Dr. Jacqueline Wheeler is the Writing Programs Associate Director at Arizona State University.

Image of the Blue Ridge Reservoir courtesy Flickr user Kevin Dooley.

This isn't necessarily good news for the national forest, since Payson's growth over the years has been facilitated through land trades that have moved the town further and further into the Tonto. When I was there in 1999 or so, looking at the developments enabled through multiple land exchanges, developers were cutting down forest, building big houses (one development had hangars instead of garages) and then naming the subdivisions after whatever flora and fauna had been displaced. It was a real pity. Homes that looked like the ones vacationing Phoenicians had left behind, with not much difference other than the climate.

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In dry country, this 'cop' lays down the law on folks who waste water

By Tony Davis Arizona Daily Star | Posted: Tuesday, May 31, 2011 12:00 am

Tucson Water "cop" Tony Almodova pointed to strips of cactus, yucca and rock in front of the Williams Centre office complex on East Broadway, where lawns and flowers dominated the landscape three years ago.

"This is my poster child," Almodova said recently, as he wheeled his pickup between the complex's twin tower buildings.

After he took the Williams Centre complex to court for repeatedly letting its water run illegally onto the street, he recalled, the owners spent about $150,000 to stop it from happening again.

Now, Almodova and other Tucson Water officials say they've prodded not just the Williams Centre but many other businesses into doing a much better job of obeying the city's long-established but often-ignored law against water waste.

The utility has used the stick of fines or the threat of fines, combined with the bully pulpit of educational brochures and classes, the officials say.

Complaints poured in

Five years ago, complaints of violations poured in at 10 to 20 per week. Back then, Tucson Water officials had ordered water cops to play the role of educators and to not cite or fine violators. But officials acknowledged that repeat violations were occurring regularly.

Adding to the problems, in the summer of 2006, the city's only water cop at the time was transferred to another Tucson Water job, leaving the position vacant for the summer during a major drought.

Starting the following spring, when Almodova was hired, the city began to cite and prosecute chronic offenders. Almodova and other water officials say today that policy has led to a sharp drop in complaints and citations - and in water waste.

"When I first started, you'd see water running down the street, every street," Almodova recalled one day a couple of weeks ago as he drove Broadway through midtown Tucson. "I would tell a business that, and they would say: 'It's my water. I pay for it. I can do whatever I want.'

"Now the word has come out, 'Here comes the water cop - we'd better correct things,' " he said. "People are more cooperative. They know that if they're not, they get a citation."

But he also said, " 'We can work with you. We are not just here to enforce or beat you over the head.' "

Violators aren't usually taken to court until at least the third offense, after getting a verbal and then a written warning. If found guilty, they go on probation for a year. During that year, if they're found guilty once more, fines double or triple, Almodova said.

Fines for first offenders are $250, reaching $500 and $1,000 for second and third offenders.

Fewer wasting water

The drought and the bad economy have also helped push people into wasting less water, Almodova said.

At age 54, he's a 20-year Tucson Water veteran. His formal title is water conservation inspector.

As he drove this day, he pointed south to Chili's at 5150 E. Broadway, where every strip of landscaping is filled with reddish rock, mesquite, palo verde and beds of low-water, bright-yellow lantana flowers. "They had a big lawn area" that was removed two years back at his prodding after water running down the street led to a fine, he said. Chili's officials confirmed they had made those landscaping changes.

At the Williams Centre, 5210 E. Williams Circle, huge beds of grass still slope downward from the office buildings. But strips of rock have been laid between lawns and streets, so irrigation water doesn't reach the street.

Back in 2007, "every single day" water would run off this property into storm drains, which took the water across the street into a neighborhood, Almodova

recalled. There, it went into a wash near homes, drawing mosquitoes that likely contributed to two cases of West Nile virus, he said.

Almodova said the city's files showed the company was fined $1,500, and while the company recalled that the fine was waived in return for installing improvements, city officials said they had no record of that.

"We removed about two-thirds of the grass, and we upgraded our irrigation system using a very efficient head," recalled Martin Stupka, facilities director for the Colton Co., one of the building's owners. "We put in 125 tons of gravel.

"We were told that if things weren't resolved, the property owner could be responsible and face criminal charges. We have a good name in town, and we wanted to keep our name clean, and we did want to save the water, of course ... and we cut our water bill almost in half."

One possible violation

Down the street at the Plaza at Williams Center, a retail complex at 5420 E. Broadway, Almodova stuck a tape measure into a small pond in the gutter that appeared to come from the property's lawn. It measured more than a quarter-inch deep - the threshold for a violation, he said. A week earlier, Almodova had seen water run from the property into the street and told the owners to fix the problem, he said.

Now, he's not going to cite them, but if he sees water running down the street a third time, he will, two years after the owners paid a fine, he said. George Rodieck, owner of the landscaping company, Cherry Landscape, said the building's management - which invested $8,000 in irrigation upgrades two years ago - found this time that a sprinkler system valve was stuck in an "on" position, and it was replaced.

Driving to El Charro, 6310 E. Broadway, Almodova came across a stream of water dribbling from an ice machine at the restaurant's rear. Water was ponding on the El Charro lot and leaving the property, which would amount to two separate violations, he said. Since he's seen no problems there for a year, after lots of problems before, he said, he'll tell them this will be the last warning before a citation.

Ray Flores Sr., El Charro's owner, said the area of the restaurant where the water came from was incorrectly plumbed. The restaurant - which Flores pointed out serves water only to customers who request it - probably will eventually redo the pump system to fix the problem permanently, but for now it has rerouted water away from the street.

City violates, too

Later that morning, Almodova, responding to a complaint, visited a southwest-side wash near the Tucson Mountains where water from a 12-inch, underground city water main was leaking into the desert.

The water, near West 36th Street and Westover Avenue, was causing problems for cars, and a garbage truck almost got stuck there, Almodova said. The wash was saturated, full of algae, and the main had been leaking for probably a month, he said.

Because it's a city water leak, no citations are possible, but Almodova phoned in a work order to have the main fixed. Another work order had been issued for that site earlier, so it should be done soon, said Tucson Water spokesman Fernando Molina, adding, "It depends on our workload."

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

Town says it's satisfied to let state rule on permit application

Marana fails to get sewer-plant OK

By Rob O'Dell Arizona Daily Star | Posted: Friday, June 10, 2011 12:00 am

Marana's effort to take over a county wastewater treatment plant hit a major roadblock Thursday when the Pima Association of Governments voted to deny the town a required environmental permit to operate the facility.

The town wants the northwest-side treatment plant so it can control sewer hookups and claim the water-recharge credits attached to the treated effluent it produces, both keys to future growth.

In April the Legislature voted to force the county to sell the plant to the town for the amount still owed on the bonds used to pay for it. But the town still needs to get the regulatory permits to operate it.

Despite the rejection, Marana Mayor Ed Honea said he was happy with the decision because it allows the town to take its case to the Arizona Department of Environmental Quality.

ADEQ officials said they haven't been officially notified of the PAG vote, so ADEQ spokesman Mark Shaffer said, "We don't see a a clear course for any further ADEQ action."

Honea and Marana were left in limbo two months ago after the PAG regional council voted to delay consideration of the town's application for a permit.

Thursday's vote was 4-3, with Tucson Mayor Bob Walkup abstaining. Honea and representatives from Sahuarita and Oro Valley voted yes, while representatives of Pima County, South Tucson, the Tohono O'odham Nation and the Pascua Yaqui Tribe voted no.

"We need to take an action," Honea told the PAG regional council. "I'm happy with a no vote. I'm willing to accept a no vote," he said, because the issue can now be advanced to the ADEQ, instead of remaining stalled at the PAG.

While the final decision rests with the ADEQ, Pima County Administrator Chuck Huckelberry said he's never heard of the ADEQ overturning a local environmental permitting decision. He said "it's never happened" that he can remember, noting that local control of such permits is called for under federal law.

After the permit was voted down, Walkup asked for the decision to be reconsidered and for the application to be put back on hold. Walkup said the board should not consider the application until all the lawsuits surrounding the issue are settled in court, which officials said could take between three and five years. His motion failed on a 6-2 vote, with only Walkup and Pima County Supervisor Ramón Valadez voting yes.

Marana has wanted to control its own sewer system for years so it can control growth in the area. Town officials have long accused Pima County, which built and operates the plant, of holding up development projects in its area.

Before the town got the Legislature to intervene on its side it tried to take over the plant by annexing it and claiming ownership because it was within the new town limits. A Maricopa County Superior Court judge rejected that claim, saying the plant was built to serve more than just Marana residents and paid for by all county taxpayers.

Pima County has announced it intends to sue the state over the law forcing it to hand over the sewer plant to Marana.

Honea told the board before the vote that the issue was allowing Marana to "control our own destiny and control our own wastewater." Honea said the town has been working on the permit for two years, and waiting for a resolution to the lawsuits could delay the issue another three to five years.

Valadez urged regional council members to vote no because he said Marana's plan hurts regional efforts.

Walkup asked to recuse himself from the vote because he said the City Council had concerns and he did as well. "I'm reluctant to cast a vote," Walkup said.

Huckelberry said he didn't know if the ADEQ would choose to overturn the PAG's decision but said he would view that as a serious step that would likely be appealed to the Environmental Protection Agency.