Reader makes water policy suggestions for Highland Lakes area

BY JERRY HIETPAS
Special to the View

County Commissioner Karen Huber wrote a call to action article in the Dec. 30 edition of the *Lake Travis View*. She said we must speak up to our policy makers about water because it is so very essential and finite, and past practice must be improved upon. With that as a starting point, here are thoughts and specific actions to consider --- policymakers.

OVERVIEW

In the Hill Country, most water comes from rain. Water is stored and pumped from our lakes, (Buchanan, Inks, LBJ, Marble Falls, and lastly Lake Travis), treated for human consumption (potable water), and then the vast majority is not used in the household. It is sprinkled on lawns. Unfortunately the current concept is that a beautiful yard is a grass yard --- not stone, not Xeriscape. The other big user of water from Lake Travis is what is passed through the electrical generators at Mansfield dam and flows down river to supply those cities, and irrigation water to rice farmers. Our lake system works. It got us through the recent drought and then the heavy rains. But as the Colorado River basin population grows, how will we live with the finite amount of water available? Following is some background on what we do now, and then thoughts on what could be done differently.

BACKGROUND

Developers finance the water and sewer systems they build with a Texas legal tool called Municipal Utility District (MUD). Developers stake out the boundaries for a new MUD. They operate their MUD under a permit from the Texas Commission on Environmental Quality (TCEQ). Having a MUD enables them to borrow money to pay up front for the water and sewer system, using their MUD's taxing authority as collateral. After the bond indebtedness has been paid, the developer can turn control of the MUD over to the people it serves. MUDs enable developers, and protect existing residents from paying for building the newcomer's water & sewer systems.

There is a unique law that applies only to the Highland Lakes area. I will not debate the Highland Lakes Rule here, but accept it as a reality for the Hill Country. In short, the treated waste water cannot be discharged back into the river or lakes. The net result is MUD's must control sufficient land where it can get rid of its treated waste water by irrigation or evaporation. This land may not be used for any other purpose, not a park, etc. This condition exists in Hill Country MUDs, with differing degrees, situations and opportunities. Waste water is cleaner than the lake it came from. Most other places, including Austin, put treated waste water into the river.

MUDs often can negotiate to control the amount of sprinkling on a golf course, or on public land, but they usually need to buy more land to comply with the Rule. The TCEQ gives no credit for sprinkling yards if the MUD does not control those sprinklers. That is because the homeowner may elect to shut his sprinklers off.

Water conservation will cause a MUD to sell less water and decrease its revenue. The variable costs will decrease some, but the fixed costs will remain the same, and the MUD must find a way to recoup some of its lost revenues. There is likely not enough fat to cut out of operations to cover the shortage. Increasing the rates to pay for conservation may be politically tough. But it is worth a lot of money to a MUD if conservation can forestall an expansion project that would otherwise be needed on the water side of the system. Bottom line is, MUDs are a business, albeit not for profit, that face a dilemma over conservation. Conservation also causes the Lower Colorado River Authority (LCRA) to sell less lake water to the MUDs, but they seem to have other willing new customers.

With that background, here are thoughts and specific actions to conserve water.

IMPROVE UPON THE HIGHLAND LAKES RULE.

It is unusual for a developer to include a purple pipe distribution system while installing the potable water and sewer pipe. (Treated waste water runs in pipe that is colored purple for identification.)

Such a central system is more economical than if left to the homeowner later, and allows for better control for conservation. A developer can design the system with only one buried pipe on the lot lines if the sprinklers turn all the way around. If instead each home owner installs a sprinkler system later, each yard has its own line at the edge of the property with the sprinklers turn half way around. If the purple pipe system was larger in diameter than our potable water meters, there could be fewer zone control valves. If the TCEQ would grant some credit for the yards sprinkled with reuse water, the developer could reduce the amount of land for irrigation his MUD must buy. The same pumping system used for any irrigation system can be used for the purple pipe system. By the developer installing a waste water purple pipe system up front, the home buyer pays less for his irrigation system, uses cheaper water, has better control, and water is conserved. The problem is getting the developer to break tradition and sell the homebuilder that it is a good idea.

The point here is that policy makers can and ought to establish regulations that allow for smart irrigation systems, better use of waste water, and stop wasting money on additional cedar tracts for all these developments. Giving credit for sprinkling yards is good policy for new developments as well as existing mature MUDs.

If the TCEQ would grant some credit for the yards sprinkled with reuse water, there is incentive for mature MUDs to conserve water by adding yards to its spray system. For example, Lakeway MUD (LMUD) is a mature MUD located within a city. It owns 100 acres of cedar tracts with sprinklers dedicated for compliance with the Highland Lakes Rule. Those sprinklers have not been used in the past five years. LMUD has "picked the lowest fruit" in finding other places to sprinkle all its treated waste water where it does some good. As Lakeway builds out, there will be more waste water to dispose of. Finding new yard areas and installing the purple pipe system will cost money. And because those areas do not qualify for credit under the Rule, it must continue to own, maintain and maybe enlarge the cedar tracts. If it was not for this purple pipe system for those yards, they would be using more expensive potable water which would be additional water taken from the lake. It would conserve water and save money if the Rule were modified to give some credit for sprinkling yards.

IMPROVE CONTROL OF IRRIGATION SYSTEMS

Golf courses use a lot of waste water for irrigation. In the past, the MUD's arrangement with the courses were developed with the paradigm of waste water as something to get rid of, not an asset. So, often they sprinkle more than necessary. Better technology for managing the water used on golf courses would conserve water, but why do it if it's only wasted on cedar tracts. That gets back to the need for an update of the Highland Lakes Rule.

Most all individual home sprinkler controllers are primitive technology that waste water. They operate on only a timer, not on a sensor to measure soil moisture and wind velocity. They sprinkle if it's raining or if the water is blown away by the wind. Most of us just set our "Rainbird", and forget it. There is a better way.

Consider Austin Energy's Power Partner program. On the really hot summer afternoons Austin Energy sends out radio signals to stagger the cycling of many home air conditioners, which reduces the peak electric demand. They provide a new thermostat and its maintenance free, plus give a brake on the electric rate. This same concept could be applied to sprinkling systems. And because sprinkling timing is much more flexible than peak AC electrical loads, it can offer more than the electrical "peak shaving" benefit. Effective controls is a way to conserve.

LCRA and MUDs could do the following:

- Change out the present irrigation controller with a radio controlled one.
- Measure soil moisture, wind, and consider the weather forecast.
- Remotely turn the home sprinkles on as needed, with the home owner's option to get 110%, or 90% or whatever of what MUD says is needed, to satisfy the particular homeowner.

REPLACE RICE CROPS WITH A REVOLUTIONARY ETHANOL CROP

American farmers are the worlds best, have made remarkable strides in increased production, and farming communities have built facilities for handling, storing, selling and transporting the

products. That's how their communities thrive

Ethanol has made its appearance elsewhere in our country where they use food crops to make gasoline. What if our agricultural universities developed a crop particularly suited for fuel, not for food, suited for southeast Texas, which used less water than rice? What if the rice farmers converted over from rice to this new crop? There could be no fuss over too much harmful genetic engineering for humans, no costly regulations associated with protecting our food supply. The reduced irrigation would free up an enormous amount of water, sold at a much higher rate than the rice farmers pay for it. Likely it would take subsidies to convert over from rice, but most every industry got help to get started. The increased revenue for the freed up water could help pay for the subsidies. It sure would help if the federal policy makers showed leadership in developing an effective energy policy ---a bold one, like; we are going to the moon in this decade. Our agricultural industry could once again show its fantastic capabilities. They are the best there ever was.

CLOSING

The TCEQ needs to revisit its regulations to adapt them to the growth in the Hill Country. Unfortunately, the TCEQ is perceived as unapproachable, will not listen to reason, so why try? What is needed here from the TCEQ and state government policymakers is leadership to foster creative thinking of waste water as a valuable resource, not a burden. MUDs need to make their case, not cower. It is an opportunity waiting to happen. Karen Huber called it "complacency". Lets get on the ball, think, network within your community, and then speak up to your policy-makers.

Editor's note: Jerry Hietpas serves on the Lakeway Municipal District board. However, he wished to make it clear that the thoughts expressed in this column are his, and his alone, and do not necessarily represent the board or staff of LMUD.

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