



# The High Line

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*Our mission is to keep water flowing in the Canal and maintain the adjoining trail for all users.*

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## President's Column

*By Tom Waymire*

I have read another “water” book. This one Water Matters is a collection of water essays edited by Tara Lohan. Reading the book reminded me of the 344 page draft proposal of “Colorado’s Water Plan” written by the Colorado Water Conservation Board that is due to be finalized by this coming December, 2015.

The stage for developing such a water plan was set way back in 1922 when officials from Colorado and six neighboring states met to divvy up the Colorado River water. It didn’t make much of a “splash” back then because the weather in 1920’s was probably the wettest in several centuries and there weren’t very many people living here then. Nine interstate compacts and two Supreme Court decrees on water sharing has left Colorado with the legal right to only 1/3 of the water that originates within Colorado.

Southeast Colorado got a taste of dry weather during the dust bowl years of 1931 to 1939. That region has seen more dry years than wet years. All of Colorado also had a very dry year most recently in 2002. Mother Nature just isn’t very dependable when it comes to water from the sky. But

we humans depend on our “water mother” to always be there for us, but she is saying to us that we need to become more responsible in our use of her water. Doesn’t she still love us, we wonder? Yes she does, but the essays in the book speak about our need to become more responsible with her love.

Western Resource Advocates, headquartered in Boulder, has come up with five ideas on ways that we can stretch our Colorado water resources.

First, conserve our municipal water use. That is by far the cheapest measure. This means improving landscaping, rebate programs that incentivize water-saving devices and through the installation of new appliances and fixtures.

Second, encourage more re-use of water plus legalize rainwater harvesting.

Third, with agriculture being the largest water user, continue irrigation efficiency, rotational fallowing, crop shifting and legalize water banking rather than losing one’s water right. The “buy and dry” practice currently being pursued is not good policy.

*(See “President’s Column” continued)*

*"President's Column" (continued)*

Fourth, use less water for cooling thermoelectric power plants while encouraging renewable energy such as solar.

Fifth, build some smaller inland desalination plants in areas with brackish groundwater and surface water. Continue the eradication of the tamarisk trees along the Colorado River.

Well, those goals are pretty specific. How well does the "Colorado's Water Plan" draft address those five objectives. Not well at all, I'm afraid. It seems that talk is cheaper than action. In 2004 and 2005, a forward-thinking Russell George organized the Interbasin Compact Committee (IBCC). Since then there have been over 850 meetings to catalogue the eight water basin needs and water projects. Governor Hickenlooper says that it's time for all these discussions to have a product. But saying so doesn't make it so. One glaring flaw is that some basins identify water from another basin as a target for its own new water supply. Think western slope and Denver.

One other sticking point is the disagreement over the level of water conservation to strive for. The Colorado River basin wants high conservation while the South Platte/Metro Denver basin supports only medium water conservation. While that might sound disingenuous, medium conservation in a high water use area might achieve more water savings than high conservation in a low water use area.

But the most contentious disagreement among the eight water basins is whether, when and how to build a new transmountain diversion project to pipe Colorado River Water to the Eastern Slope.

But "Colorado's Water Plan" is only in draft form. It's hoped that some of the conflicts between water basins can be resolved in the final document. But there are significant areas of agreement. There will be more water conservation actions. There will be more reuse plants built. There will be changes in the water laws. For example, municipalities would be allowed to lease agricultural water rights rather than owning the water right. This latter idea is to prevent the "buy and dry" whereby farmers can't afford to buy land with water rights nor farm profitably, so they instead sell their water rights to the highest bidder.

There is a bill in the Colorado legislature to allow homeowners to capture rainwater for later use while saving the cost of treating it. It's opposed by attorneys who (properly) quote 1900's law that says that rainwater is owned by downstream water right owners. As of this writing, I don't know its fate, but we support our lawmakers who want to adapt water laws to fit the modern times we live in. Last year Colorado did pass a law allowing homeowners without a municipal water tap to harvest rainwater and the controversial Sterling Ranch housing project will allow rainwater capture.

A side note: The Environmental Protection Agency now seeks to require green roofs, rain barrels and other measures to trap rain runoff in the District of Columbia in order to stop water from flowing into the rivers. Developers would be required to trap 90% of the rainwater.

### **Buy and Dry Policy Explained**

When a farmer sells his water rights, he makes a one-time profit and forever ceases

*(See "Policy Explained")*

*(Policy Explained – continued)*

to be a farmer. Furthermore, current “out-of-touch” water law says that if a farmer doesn’t use all of his allowed water, he stands to lose that amount of unused water in all future years.

That same farmer who is using his allotted water more efficiently might now have to try to grow 3 alfalfa crops instead of 2 crops.

Wouldn’t it make sense for the farmer to retain all his water rights and perhaps lease any excess water rather than trying to squeeze in another crop? Excess water can be put to good use without “drying up” the farm and putting the farmer out of business.

### **U.S. Weekly Drought Monitor Websites**

If you would like to see for yourself what the drought situation is like across the nation, here are two. They both use the same map, but we like the University of Nebraska site (the first one listed) better than the government one.

[www.DroughtMonitor.unl.edu](http://www.DroughtMonitor.unl.edu)

[www.Drought.gov](http://www.Drought.gov)

### **High Line Partners Conservancy**

As we reported last issue, a Steering Committee has been formed to create an organization called the High Line Partners Conservancy. Your organization is a member of the steering committee. It’s amazing to us how much work it takes to get fully organized just to start functioning. But we are excited about their goals and vision. There seems to be a good working relationship with Denver Water, but it’s only fair to realize that their expectation of outcomes may very well differ from those of the Conservancy as time moves along and the discussions deepen.

### **Low Flow Toilets**

The Denver Post reported in February that water use in metro Denver dipped to 40-year lows. We should pat ourselves on our backs. Monthly water consumption dropped by as much as 20% to a level last seen in 1973 when Denver had 350,000 fewer people. But we need to do more. Currently, Denverites use 82 gallons per day per person. The goal is now 30 gallons for indoor use. It’s unclear from the article if the 82 gallons includes outdoor watering.

A key to this goal are the fixtures we use. After all, the number of times we use a fixture (toilet, washing machine, et al) will not change very much. Older toilets used 3.5 gallons of water per flush. Newer toilets use 1.6 gallons. The newest “WaterSense” toilets use only 1.28 gallons and there is an ultra high-efficiency model that uses only one gallon per flush. Rebates are available from Denver Water when buying one of these options. Then there are the no-water, composting toilets you see more and more. What we hate to see are the buildings that use automatic flushing toilets. One cannot go out to the airport and not be aghast at the water being wasted (pardon the pun) in the restrooms.

Other pieces of the strategy are working: rebates for better appliances, tiered water rates, better water retaining soils in new developments and the occasional lawn-watering restrictions.

### **KB Homes – Double Zero House**

Our future home was built in 2014 by KB Home in Lancaster, California. Their water system saves about 70% of a typical home’s water use. How? Water (greywater) from

*(See “KB Homes”)*

*(KB Homes – continued)*

sinks, tubs, showers and washing machines (not toilets) flow into a heat-recovery system. The extracted heat is used to preheat fresh water in the tankless water heater. Lastly, the greywater is channeled into a collection tank where it is stored for outside watering.

This system would be great in the suburbs where homeowners are dependent on rapidly depleting groundwater.

### **What about Reuse Water?**

If greywater can be reused, what about toilet water? Well, not yet. All the water that goes down your toilet and sinks is called “wastewater.” All that water goes into a wastewater treatment plant. All that water is therefore “reused” or “recycled” in that the water coming out of the treatment plant goes into rivers that become the water supply for towns downstream.

A few years ago, Denver Water did pioneer a multi-filter system to produce drinking water from wastewater. While successful, they were left with a super-concentration of contaminants ranging from tiny plastic beads used in person-care products to flushed medicines to resistant bacteria and viruses. Regular sludge could be spread on open land, but this new sludge was too contaminated and needed to be injected into deep wells or buried in landfills.

So Denver Water has stepped back a bit and has focused on using recycled wastewater solely for irrigation, power plant cooling towers and other non-potable uses. What is interesting about all this is the separate pipelines that are starting to snake around the city.

While water conservation is by far the cheapest option, reusing water is a lot cheaper than building a new dam and reservoir. But there is a legal hurdle to overcome and that is an obligation to return diverted water back to the river system. However, that won't become a problem until a lot more water is recycled, and we are not close to that happening.

### **Sterling Ranch Update**

It's official. The 12,000 new home development was allowed to proceed by the Colorado Court of Appeals, even though they have very little water to service the project. It's expected that they will depend on the rapidly depleting ground water supply. As mentioned above, they will be allowed to capture rainwater from storm-drainage systems and rooftops and recycle it to water lawns, gardens and open space. But what about the out-dated law that says that rainwater belongs to someone downstream and not to the property on which it falls? The key word here is “stream”. It was determined by the Water Conservation Board (the same people drafting the “Colorado's Water Plan”) that in northwest Douglas County, just 3% of rainwater reaches a stream. 97% of the rainfall soaks into the ground.

### **SkyMark Housing Project**

Southeast of the intersection of Mississippi and Parker Road is a housing project proposed on vacant land within both Denver and Arapahoe Counties. Additional traffic generated will make getting onto and off Parker Road very difficult for area residents. Our interest is in the fact that the proposed development lies adjacent to the High Line Canal. The developer is interested in

*(See “SkyMark Housing”)*

*(SkyMark Housing – continued)*

building a bridge across the High Line Canal to access the trail. We are not opposed to more trail access but we have heard that Denver Water does not want any more access bridges. Their position is always subject to change, however.

### **High Line Canal Water Priority**

As you have read in your Newsletter, the water right priority year for the High Line Canal is 1879. What does this mean? Back in the 1900's, settlers and a myriad of water companies made claims on the water that they needed for farming or for municipal water needs. How was it possible for anyone to know whose water was whose? Enter the lawyers. Arguments led to the establishment of the Colorado Division of Water Resources, known as the State Engineer's Office. It set up a priority system using dates of application. Thus, there are dates of water priority earlier than 1879 and dates after 1879. Some years ago, we visited the State Engineer's office in Greeley. We learned that all the earlier water priority right dates were now owned by various utilities and municipalities.

But just having a water right doesn't mean that you have water whenever you want it. First, there has to be enough water to flow. For instance, the 1879 water right for the High Line Canal is now in priority. Water could be flowing into the Canal right now but, and this is a big "but", there isn't enough water from the seasonal snow melting coming into the South Platte River to allow any water into the Canal. That's why we don't get our Spring water flow in the Canal until around early May. By then, farmers are starting to irrigate their fields and they might have a higher water priority date than does the Canal. As the State

Water Engineer told us, rainfall makes a big difference. If it rains, farmers won't make a water call even if they are in priority. That leaves water available to flow into the Canal.

There are also different types of water rights, primarily irrigation and municipal water rights. High Line Canal water is an irrigation water right whereas the water that waters our open parks is a municipal water right. Water rights can last forever as long as the water is used in accordance with the terms and conditions of the water right. If the water right (or a portion of it) is not used for five or more years, the portion not used is lost. That has happened with our Canal water over the years.

Lastly, there is no proportional distribution during a drought. The most senior water right holder may use all of his water authorization even if doing so will dry up his neighbor. Interesting.

### **Membership Renewal Time**

It's that time of year again. Time to renew your membership in the Association. Please complete the enclosed renewal slip and return envelope. Thank you for your continued support of your organization.



#### **Current Board Members**

|                        |              |
|------------------------|--------------|
| Tom Waymire, President | 303-355-6181 |
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