

COLORADO SPRINGS GAZETTE

1. WHEN WILL OUR WATER RUN OUT?

February 18, 2007 - 12:00AM

By [BILL McKEOWN](#) and [PAM ZUBECK THE GAZETTE](#)

Water wars were a staple of the American West 150 years ago as settlers sought to reshape an empty, semiarid land.

That effort was successful — perhaps too successful. The rural, agrarian West built by that first wave of white settlers has been replaced by verdant golf courses, cookie-cutter suburbs and boulevards of big-box stores.

Some are predicting the 21st century in the West will be characterized by a new wave of water wars, fought by modern settlers trying to hold on to what they have.

Why?

Simply put: The demand for water in the West — including in Colorado — has or will soon outstrip the supply.

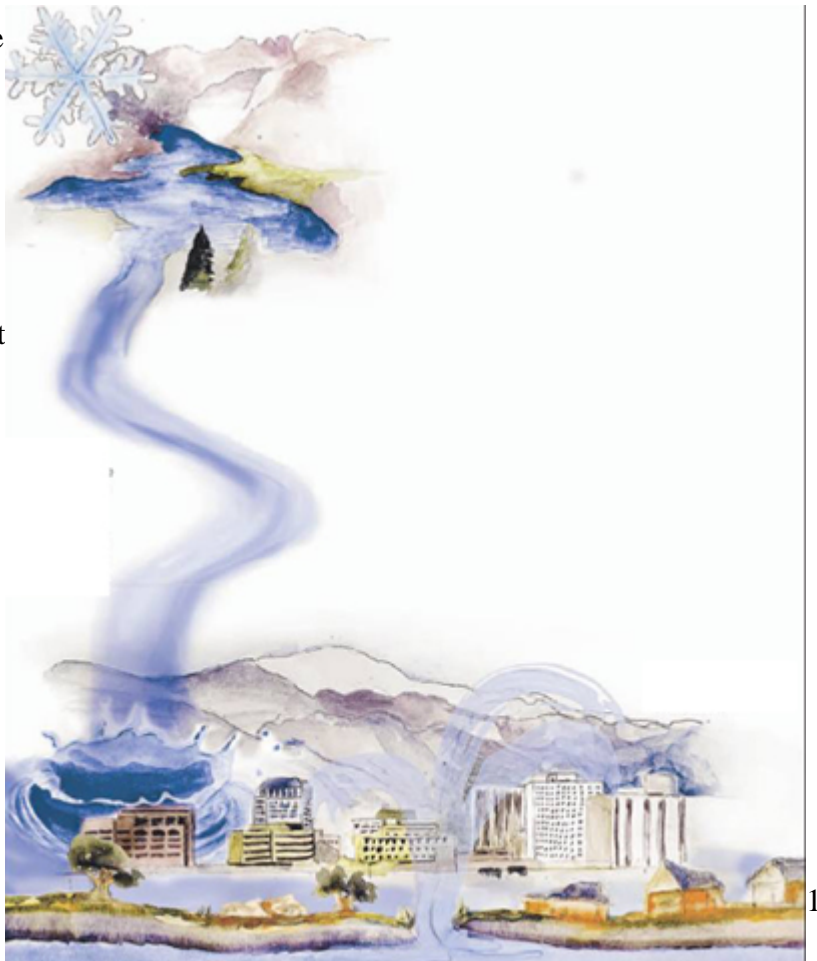
“Is there enough water to continue to meet all needs we currently have and have water for new population? I think everyone agrees the answer is no,” said Doug Cain, the Lakewood-based associate hydrologic studies director for the U.S. Geological Survey.

That dire statement shouldn't be shocking to Coloradans. The signs of an impending water shortage have long been visible to experts, and the multiyear drought that struck the state in 2001 should have made even laymen aware of the West's water problems.

Consider:

- Front Range groundwater, both the shallow layers that can be replenished and the deeper aquifers that can't, are being tapped at a rate that will exhaust them. About 22,000 wells have been sunk into various aquifers in eastern and northern El Paso County, and some of those underground layers of water are showing signs of depletion.

The water supply for development in booming eastern El Paso County is at risk, said Kathy Hare, president of the Upper Black Squirrel Groundwater Management District. The district formed in 1973 to protect the water supply in the eastern El Paso County basin.



(ILLUSTRATION BY NICHOLE MONTAÑEZ, THE GAZETTE)

“They’ve been adding housing units left and right, and they’re all relying on the same water supply,” she said.

Despite warnings that groundwater will play out, there have been few signs that politicians, developers or home buyers are willing to face the facts. Between 2000 and 2006, for example, the portion of building permits issued in El Paso County for construction in unincorporated areas — those most apt to rely on wells — grew from 24 percent to 38 percent.

- Snowmelt, the main source of water for Front Range cities, has fluctuated wildly from year to year. Snowpack in the Arkansas River Basin has swung from 309 percent of normal in May 1968 to 10 percent of normal in 1981 and points between in the past 39 years, the Natural Resources Conservation Service reported.

A 2006 State of the [Rockies](#) Report Card issued by Colorado College predicted climate change in the next 80 years will threaten the ski industry and the urban water supply.

- Flows from most rivers in the state are over-allocated, not only to Colorado users but also to those in other states.

Although the Colorado River is a source of pride for Coloradans, it isn’t called the mother of all rivers for nothing. Because of agreements reaching back to 1922, Colorado must share the river’s waters with Arizona, California, Kansas, Nebraska, Nevada, New Mexico, Texas, Utah, Wyoming and Mexico.

- Many of those states depend on their allocation of Colorado River water to meet the demand of growing populations. And there doesn’t appear to be any end in sight to new Westerners.

Colorado, for example, can expect 1.5 million new residents by 2030, and 300,000 of them will be in El Paso County, the U.S. Census Bureau predicts.

All those factors — depleting groundwater, unpredictable snowmelt, competition for water and population growth — set the stage for nasty conflicts. And the struggles, the U.S. Interior Department predicts, will only get more intense.

In fact, the department has identified the Front Range of Colorado, from Pueblo to Wyoming, as “highly likely” to see water supply crises by 2025.

THE SPRINGS’ FUTURE

Those charged with providing water to Coloradans — sometimes called “water buffaloes” by their critics — are an ingenious lot. They must be, because finding, buying, transporting and storing water is an expensive, politically fraught job.

Some of the best “buffaloes” historically worked for Colorado Springs, and they built a water system that is the envy of many Front Range cities.

Since the late 1800s, the city has built a water system to accommodate a population that’s multiplied by 17 times in the past 100 years.

The projects include the Pikes Peak water collection system, which provides about 17 percent of Colorado Springs Utilities’ supply. The remainder comes from four transmountain systems: Blue River, Homestake, Fryingpan-Arkansas and Twin Lakes.

Still, even this city is reaching the bottom of the pail.

Colorado Springs faces a demand for water in future years it can't guarantee, and the city must bring more water in by 2012, officials said.

To do that, city-owned Colorado Springs Utilities wants to build a pipeline that it calls its last big diversion project, the Southern Delivery System.

The system of pipes, pumps and local reservoirs would bring water from Pueblo Reservoir to exercise water rights the city owns in the Arkansas River's upper basin.

The Southern Delivery System is needed to service the Banning-Lewis Ranch development, 24,000 acres on the city's northeast side that is expected to be home to 175,000 people in the next 40 years.

The project is steeped in controversy. Its latter phases require federal approval and may need the nod from Pueblo County, which has raised the issue of water quality in Fountain Creek, which takes Colorado Springs' wastewater effluent to Pueblo.

Even if that billion-dollar project is built, Utilities concedes its supply of fresh mountain water won't meet the city's needs by 2040.

And that really gets Dave Gardner's goat.

The 51-year-old Springs native thinks current water users are being asked, through higher utility rates, to fund a foolhardy growth-for-growth's-sake philosophy.

Gardner, who's making a documentary film about growth and sustainability, has attended countless public meetings learning about water and the city's plan.

He thinks pumping in more river water might delay the crisis for 30 years, but eventually the free-wheeling growth that has characterized this city for years will have to end.

"Then what do we do, go after agriculture?" he asked. "That buys us another 40 years. It's completely unsustainable. Do we want our grandchildren to live in a state where you can still fish? Where you can go to a city park that's not concrete?"

Gardner wants the city to stop building "growth-inducing" water projects.

"There is no law that says a community has to continue to connect new water customers if you're gambling with the future and you don't know for sure the water will be there," he said.

MORE OPTIONS

Several other ideas being considered statewide to provide water to future generations. Some are easily doable; others will take time and money.

Many cities have begun pricing water to reflect its true cost, or adopting a tiered system with heavy users paying more per gallon after certain thresholds. That has, in part, eased the escalation of demand for irrigation water. Colorado Springs Utilities adopted a tiered system in 2006, and residents now use less water than they did in 2001, the last year before the drought that led to several years of watering restrictions.

But simply saving water won't stop what some have called a "hell-bound train."

Utilities officials don't particularly like to talk about it, but someday the city may have to treat its wastewater back to drinking standards to supply enough water to faucets. That, they say, will be an expensive task, fraught with public relations problems in a city accustomed to having some of the finest tap water in the country.

Utilities, like others farther north, has been sinking deep wells into the Denver Basin, a massive aquifer that stretches from Highway 94 in El Paso County to Fort Collins. Some experts say the nonrenewable Denver Basin is being depleted far more quickly than expected.

One scientist from the Denver Museum of Nature predicted Denver Basin groundwater will be gone this century.

Other scientists think that is alarmist, because not enough is known about the hydrology of the Denver Basin.

The USGS is expected to complete the most comprehensive study of the basin this summer.

Colorado Springs Utilities and others in the state are considering or have begun experimenting with injecting water into aquifers in wet years, to be withdrawn in lean ones.

The technology is promising, but there are technical and legal problems, such as assuring that other well users don't suck out the water before it is needed.

None of those ideas would help individual well owners who live far from established water districts and who have tapped into the shallowest aquifers above the Denver Basin. If their wells run dry, they have undesirable options: drill a new, deeper well in hopes of prolonging their water supplies or have water trucked in and stored in cisterns.

City dwellers could perhaps take hope in the idea of Fort Collins resident Aaron Million.

He has come up with a plan to pipe water across Wyoming along Interstate 80 and south to the Front Range from the Flaming Gorge Reservoir on the Green River.

The \$4 billion to \$5 billion project is called "intriguing" by Colorado water gurus, but it's unclear whether it can clear regulatory hurdles.

AGRICULTURAL IMPACT

In the end, such ideas are stopgap measures. The solution to the Front Range's water woes — and many see it as a poor one — is robbing Peter to pay Paul.

Cain, of the USGS, said, "If the question is, 'Is there water in Colorado for new municipal growth?' There is enough water for that, but it has to come from some existing use, so that has to be interrupted or changed to make way for that."

He's referring to agriculture, still a potent force in the state's economy. Farms and ranches use 88 percent of the state's supply of water to irrigate 5 percent of Colorado's land.

Already, the three big Front Range water providers — the Denver Water Board, Aurora and Colorado Springs — have begun buying agricultural water rights.

The deals might be good for farmers wanting to get out of the business, but they have profound implications for the schools, businesses and towns that dot the eastern plains.

At the height of the drought, state lawmakers made it easier to do a more kind and gentle water grab: Water providers can now lease agricultural water rights in lean years, when farmers might struggle to produce a crop, and give up the water in wetter years.

Still, there isn't any doubt among those in agriculture that big-city water boys are coming with wads of cash and slick lawyers.

That's when Coloradans must decide what kind of state they want.

"I'm not saying the kinds of choices that would need to be made are easy," Cain said. "They involve moving water from some traditional uses to others, and it will affect the way our state looks and the economy of the state."

Where our water comes from

Reservoirs, date completed and capacity in millions of gallons:

SOUTH SLOPE SYSTEM

Lake Moraine 1891 431

Boehmer 1894 176.3

Big Horn 1896 62.3

Wilson 1896 218

Mason 1905 640.3

McReynolds 1905 667.9

Big Tooth 1929 210.1

NORTH SLOPE SYSTEM

Crystal 1935 1,100

South Catamount 1937 848.4

North Catamount 1960 3,900

NORTHFIELD SYSTEM

Northfield 1890 90

Nichols 1913 191

Rampart 1970 13,300

BLUE RIVER SYSTEM

Montgomery 1957 1,660

Upper Blue 1966 690.6

HOMESTAKE SYSTEM

Homestake 1967 13,970

Turquoise-Homestake 1968 4,900

TWIN LAKES SYSTEM

Twin Lakes 1972 9,700

FRYINGPAN-ARKANSAS PROJECT

Pueblo Reservoir 1975 18,100

COLORADO CANAL

Lake Henry Account 1986 2,200

Lake Meredith Account 1986 6,700

LOCAL SYSTEMS

Rosemont 1932/enlarged in '62 826.8

South Suburban 1928 75.5

Gold Camp 1889 120

Pikeview 1894 295

GROUNDWATER

Wells scattered south and north of Colorado Springs account for less

than 1 percent of the city's supply.

2. VANISHING UNDER OUR FEET

March 18, 2007 - 1:02AM

By [BILL McKEOWN THE GAZETTE](#)

Coloradans have long exploited — and taken comfort in — the bounty of water beneath the Front Range.

More than a hundred years of drilling wells into layers of water shallow and deep helped create a vibrant, modern state.

The water seemed limitless, a wellspring for the good life. Few other counties embraced the use of groundwater like El Paso, which has more than 22,000 wells, more than all but one other county in Colorado.

That well water has spawned McMansions in Black Forest and urban growth in Falcon, once just a convenience store on the bend of a two-lane highway.

But clear indications point to a limit to nature's bounty, that the water beneath our feet eventually won't wet every mouth. The layers of water sandwiched between sand and rock, so hidden and mysterious we could pretend we didn't know better, will play out.

“Unless we start really conserv- ing our water and reusing our water, unless we combine all the factors possible to keep our water supply, I don't see a great future for this state,” said Kathy Hare, president of the board that manages the Upper Black Squirrel Creek Groundwater Basin, a shallow, rechargeable aquifer that serves many farms, subdivisions and businesses east of Colorado Springs.



A windmill pumped water into a small pool off Yoder Road east of Colorado Springs. Groundwater basins along the Front Range are showing signs of decline. (BRYAN OLLER, THE GAZETTE FILE)

Most Commented Storie

GROWTH TAKES A BITE

In many ways, the challenges facing well users are the same as those confronting urban dwellers who rely on mountain runoff. There is only so much water on Colorado's peaks and trapped in its dirt.

Of course, in raw numbers, that's an enormous amount and would have lasted far longer if Colorado's population hadn't exploded — from 2.8 million in 1980 to a projected 6.2 million in 2020, much of that along the Front Range. Experts say that growth will more quickly exhaust Colorado's sweet, first-use water.

The unique problem for well users: They don't have the layer of protection a large municipal water system provides. Colorado Springs Utilities, for example, has spent more than a century buying water and building ways to deliver it.

The smaller metropolitan districts in El Paso County created by developers and turned over to homeowners can't match those resources and expertise. And they don't have the number of customers to spread the cost of ambitious water projects. Some say that's a recipe for disaster.

Individual well owners may be the last to be affected by the "mining" of groundwater. But when their wells stop producing, that means either redrilling or hauling water.

None of the ideas for derailing that grim future is easy, fast or cheap. In 21st century Colorado, water means money. Buckets of it.

BASINS ARE IN DECLINE

Groundwater — where to find it, how to tap it, how to measure it and how to manage its use — is horribly complex, and it keeps many an attorney and bureaucrat employed.

But for most, it's enough to know that residents in El Paso County who rely on groundwater get it from two sources. Those in the northern portion of the county, including Black Forest, generally tap into the shallowest aquifer in the Denver Basin, a vast geologic formation that extends to Greeley.

The Denver Basin, made up of four aquifers overlying one another, recharges so slowly it's considered a nonrenewable supply.

And the basin's water levels are showing signs of decline, particularly on the edges of the formation and where significant pumping has taken place.

As many as 300,000 to 400,000 people rely on Denver Basin water along the Front Range, and water levels are declining at rates of 20 to 30 feet per year, the consulting firm of John Halepaska and Associates has estimated.

Similar declines are showing up in the shallow, renewable alluvial aquifers county residents to the east and south generally tap into, especially the critically important Upper Black Squirrel Groundwater Basin. But it's fully appropriated — there is no water available to new users — so anyone who wants some of the water must buy existing rights.

Under Colorado's water rules, some groundwater users must replace, at least to some degree, the water they pull from the ground. Even so, shallow and deep sources of groundwater show signs of depletion.

"We have sod farmers and other irrigators in the Upper Black Squirrel who aren't getting anywhere near the water they have rights to," Hare said. "Their wells are down quite a bit."

Dan Farmer knows that reality well. His family has farmed near Ellicott since 1949. He has seven irrigation wells in the Black Squirrel aquifer, and they yield far less water than they did in the 1960s.

"There's only three things that use up water — crops, livestock and people," he said. "There is less farming of crops out here. There are less livestock than there was 30 or 40 years ago. The only thing there isn't less of is people."

THE BLAME GAME

How did we get here?

Well, here's where the blame game begins. Some accuse a succession of El Paso County commissioners with kowtowing to developers, allowing large projects to be built on groundwater.

Others blame developers, saying they stick unprepared homeowners and taxpayers with the real cost of infrastructure, including renewable water sources. But, of course, developers are meeting demand. The fact is, a growing number of people want to live and work in a semiarid, rural area, but they want a bluegrass suburban lifestyle.

"I think we need to get realistic and shouldn't expect to recreate the environment where we came from," Hare said.

What's to be done?

Some developers and water providers are working on ways to prolong the lives of alluvial and deep groundwater.

Meridian Ranch north of Falcon, which relies on groundwater wells to supply the 800 lots already sold, has teamed with the 2,200-home Woodmen Hills development and the Cherokee Metropolitan District in a bid to build a wastewater treatment plant near Schriever Air Force Base. The plant, planned for 2009, would pump treated wastewater back into the Black Squirrel Basin to recharge its aquifer.

Sunset Metropolitan District plans to install a "dual" water system that delivers fresh water for inside the home in one pipe and treated wastewater for lawn watering and other outdoor uses in another pipe when it begins serving Santa Fe Springs, a project east of Falcon that will add 5,370 homes on 6,420 acres.

Large water providers along the Front Range have embarked on more ambitious projects to keep the Denver Basin producing.

Water districts serving Parker and Centennial have built reservoirs to store surplus groundwater. They and Colorado Springs Utilities are injecting water back into the Denver Basin, storing it until it's needed.

Utilities owns the rights to about 30,000 acre feet of Denver Basin groundwater — equaling about half of what it gets from the mountains — but maintains a philosophy that it will use that water only in lean years and will never rely on it.

Utilities is injecting transmountain surface water into two of 10 operational deep wells it owns in the Denver Basin, said Cortney Brand, senior project engineer for the water department.

That makes a lot of sense. Under Colorado water law, the utility can reuse transmountain water again and again, unlike water from other sources it must release to downstream users. Meanwhile, the groundwater can stay untouched until needed.

"We have to step out of the box a bit," Brand said. "The Denver Basin isn't just a place to take water out of. It's a storage vessel, and we're trying to leverage that dual purpose to get a larger result."

Those approaches only slow the mining of the Denver Basin. The real solution is finding other, preferably surface, water sources. In Colorado, that means buying it from agriculture, which owns about 90 percent of the state's water.

The El Paso County Water Users Association, a collection of metropolitan districts serving about 100,000 customers in eastern El Paso County, wants to lease water from Arkansas Valley farmers to supplement existing groundwater.

Getting that water into homes would be a huge political, financial and logistical feat: The association reckons it needs a \$400 million pipeline from eastern Pueblo County to eastern El Paso County.

Utilities, with vastly more money and political muscle, has struggled to get a similar but larger project, Southern Delivery, built from Pueblo Reservoir.

The Upper Black Squirrel's Hare worries about the future.

Still, she holds out hope county residents will take conservation to heart and apply political heat to elected leaders to take a more sober approach to development. She also thinks, ironically, that enlightened selfinterest on the part of developers could stave off dry times.

"I honestly think some of these developers are aware," she said. "There's a lot more land in Colorado left to be developed, and I really think they understand if they don't get a reliable source of water, they won't be allowed to develop.

"As sad as that sounds, that may be a solution."

3. Pipeline plan hits obstacles

[By PAM ZUBECK, THE GAZETTE](#)

April 22, 2007 - 1:32AM

Eleven years and \$59.6 million after the city settled on a plan to build a pipeline from Pueblo Reservoir, the project remains just that, a plan.

Not one leg of the 43-mile line has been laid, a reservoir hasn't been built and the water treatment plant is still a vision.

Many Colorado water projects have been planned, but few have been built since a wave of environmental laws went on the books in the early 1970s.

Add to that the increasing competition among cities, and it seems hard to assume Colorado Springs' Southern Delivery System will leave the drawing board.

Substantial roadblocks have stymied the city's effort to bring 78 million gallons a day of water it owns from Pueblo Dam.

Among them:

- A far-reaching environmental study that began in 2003.
- Legal battles triggered by opposition from Pueblo County commissioners.
- Negotiations to acquire land for the pipeline from Pueblo Dam to northeast Colorado Springs and a reservoir.

Growth is driving the project. The new system will be needed to serve the 23,000-acre Banning Lewis Ranch on the city's northeast side, Colorado Springs Utilities officials say, and other expansion, including growth to the north and to the south at Fort Carson, which expects to get 7,500 more soldiers by 2010. It also would provide backup supply for a system largely dependent on aging transmountain systems.

SDS, as the project is called, would be built in two phases. Utilities officials say the first is needed by 2012; estimated cost: \$623 million in 2007 dollars for pipe, pump stations, a treatment plant and distribution lines capable of moving 50 million gallons a day.

The second phase, estimated at up to \$500 million, includes a storage reservoir, return flow reservoir and expanded treatment capacity to accommodate another 180 million gallons a day.

Officials insist they'll deliver water when it's needed, but they're reluctant to pin down a date when SDS will be on line and have no other options for delivering a large amount of water in the meantime.

Water projects didn't used to be so difficult.

The Colorado-Big Thompson, the state's largest transmountain diversion system with four power plants, 12 reservoirs, 35 miles of tunnels, 95 miles of canals and 700 miles of transmission lines, began construction in 1938 after a three-year survey period. It was finished in 1957.

Construction of the Fryingpan-Arkansas project, from which the SDS water will come, began in 1964. It was authorized by Congress on Aug. 6, 1962, and 10 days later President John F. Kennedy visited Pueblo to commemorate the bill.

The project began delivering water for agricultural and municipal use in 1975.

Since then, two key actions have hampered water projects.

First, the National Environmental Policy Act, adopted in 1970, requires federal agencies to investigate environmental effects of projects that involve the federal government and recommend ways to reduce or offset those effects.

Projects can languish for years as experts analyze mountains of data. Such delays and subsequent changes can drive costs sky high.

"It's very hard to do a major project now because the best sites are already developed," said David Getches, dean of the University of Colorado Law School, former executive director of the Colorado Department of Natural Resources and one-time consultant to the Interior secretary.

"Secondly, the construction of a big project has all sorts of land use and environmental implications," he added. "Nobody wants the pipeline going through their yard. They don't want a dam near them. We have environmental issues that make it hard for the development to occur without interfering with species, water quality and wildlife."

SDS won't have to navigate through some of those issues. The project takes no water from the West Slope, envisions no dam on a river and no endangered species have surfaced.

But it does propose to draw water from the Bureau of Reclamation-owned Pueblo Dam. The dam is part of the Fryingpan-Arkansas project to which El Paso County residents have contributed by far the most of any county — \$65 million in property taxes in the past 47 years.

The bureau's environmental review has been exhaustive. "We've had thousands of components involved in hundreds of configurations," bureau spokeswoman Kara Lamb said.

After holding public meetings as far away as Buena Vista and La Junta, the bureau narrowed the pool to seven alternatives that bring water from the Arkansas River to Colorado Springs — six via a pipeline adjacent to Interstate 25 and one with a pipeline along Colorado Highway 115.

The bureau might add an eighth option — 100 percent recycling and reclamation.

The bureau is expected to issue a draft environmental impact statement late this year; a public comment period will follow.

"We'll see if any comments have new scientific information that might change something we already looked at and see if that justifies restudy," Lamb said.

She refused to guess how much time that could add but said environmental studies can span from three to 10 years.

After a decision is issued, the city can proceed.

"The municipality doesn't have to follow the (decision)," Lamb said. "They're free to change their mind and do something else but would not be free to use reclamation facilities or contracts to do what they want to do."

What Colorado Springs wants to do is lay pipe from the dam across Pueblo County, but a standoff has developed because of the other action that wasn't a factor 33 years ago.

In 1974, the Legislature adopted House Bill 1041, empowering counties to establish regulations for "areas and activities of state interest," including municipal water and wastewater facilities.

Eagle County imposed stringent 1041 rules that forced Utilities to abandon its effort to add a collection project to its Homestake system.

Now, Pueblo County commissioners are poised to do the same to SDS.

Pueblo County's 1041 rules were adopted soon after the bill was enacted and remained unchanged until 2005, when they were revised to make it more difficult for a pipeline project to be permitted, Utilities spokesman Steve Berry said.

Commissioner Loretta Kennedy disagreed the rules are oppressive.

"That's totally untrue," she said, noting several large projects, including power plants, are meeting the rules as they build right now.

“We are not against anything,” she added. “I do not believe the (SDS) 1041 application would cause a problem at all for that permitting process.”

Berry said Springs officials think the 1041 rules, which are “far too restrictive,” could hamstring the project.

Aggravating the situation are Colorado Springs’ chronic sewage spills into Fountain Creek, which joins the Arkansas River near downtown Pueblo. Pueblo commissioners and other residents are concerned any plan to infuse more water into the Springs system guarantees more water flushed into the creek, further polluting and eroding it.

Colorado Springs has a court case pending that seeks an exemption from Pueblo’s 1041 regulations and argues the matter should be decided by an El Paso County District judge because most of the pipeline will lie in El Paso County, not Pueblo County.

The state Supreme Court disagreed, sending the matter to Pueblo District Court, which will decide if the 1041 rules apply to the city’s project.

Further complicating matters is a bill recently introduced by Rep. John Salazar, D-Colo., that calls for a socioeconomic environmental impact study of water transfers from the Arkansas Basin before Pueblo Reservoir can be expanded.

The bill may go nowhere, but Utilities thinks it undermines efforts to strike deals with lower basin water users where the city wants to marshal support for SDS.

That support has largely been sealed in intergovernmental agreements in which various agencies agree to back one another’s agendas. For example, one pact involving the city, Pueblo, Pueblo Board of Water Works and Aurora provides ample flows from the dam through Pueblo to keep Pueblo’s Riverwalk park viable. In exchange, Pueblo officials say they’ll support the pipeline.

Only one agreement, with the Lower Arkansas River Conservancy District, carries a price tag: \$150,000 to coordinate study of Fountain Creek.

But other measures to appease opponents have cost millions. Among those is a \$10 million water diversion project on the Springs’ south side designed to sidetrack sewage spilled into Fountain Creek.

Even more costly is the City Council’s action to impose stormwater fees, which will generate about \$15 million annually from property owners to build channels and drains. Although the primary purpose is to prevent local flooding, council members have acknowledged the move plays to Pueblo’s concerns about Fountain Creek.

“This is not an easy challenge,” said Bruce McCormick, Utilities chief of water services. “We are working very hard with constituents around the region for support for our preferred option. We want to be a good neighbor.”

If and when approvals are obtained for SDS, the city would face the task of patching together right of way for the pipeline and acquiring land for a storage reservoir. For storage, the city has two options — Upper Williams Creek southeast of town, which is owned by the state and a half-dozen citizens, and Jimmy Camp Creek in the northeast part of the city.

The preferred site is Jimmy Camp Creek. The city paid \$6.4 million for 400 Jimmy Camp acres from 2003 to 2005 in deals so controversial they triggered a rewrite of the city’s real estate acquisition procedures.

The remaining 1,400 acres are owned by Banning Lewis Ranch Management Co.

The company, which has escorted council members on tours to explain the land's value, reportedly wants \$150,000 an acre, or \$210 million, the land's purported value 20 years from now.

Utilities officials plan to hire a land firm within the next month to handle land acquisitions. That will consume part of the \$9.7 million the city plans to spend this year on SDS.

Should those steps take longer than five years, the city will be looking for ways to bridge the gap.

Utilities water manager Gary Bostrom said some water could be pumped from wells and squeezed from a small existing pipeline from Pueblo Dam. But those efforts would be "scraping the bottom of the barrel on our system to get a little more water," he said.

McCormick says everything will work out.

"I think there's a misconception in the community that we may only have one option to do that," he said. "In fact, we have many options to do that."

City waking up to conservation

[By PAM ZUBECK, THE GAZETTE](#)

May 13, 2007 - 2:02AM

Steve and Georgia Eivins get it. They understand they live in a desert where water is scarce — and expensive, if you use a lot.

They also know conservation is the name of the game.

"We're going to run out eventually if somebody doesn't start to wake up," Georgia Eivins said.

That's one reason they decided to replace their thirsty bluegrass lawn on Mesa Road with low-water plants and an efficient drip-irrigation system. The other thing that went away: a \$250 monthly water bill.

"We wanted to be Earth-conscious," she said. "Plus, we wanted color in the yard, so the plants we picked are good in our area and don't require a lot of water."

With shortages looming in Colorado and the rest of the West, businesses and individuals are scrambling to find ways to curtail water use.

But conservation isn't a silver bullet.

Scientists studying the Colorado River and the seven states it supplies recently concluded that demand outstrips supply so significantly that conservation, while useful, won't solve the problem.

Colorado Springs gets plenty of water from the Colorado Basin, and the same message is clear: Rivers can deliver only so much.

City officials want a pipeline from Pueblo Reservoir to bring new supplies to the Springs.

But new supplies won't last forever, so city officials want people to live by the mantra that every drop counts.

The city got help from Mother Nature in driving that point home in 2002, when drought forced water restrictions.



Steve Eivins and his wife, Georgia, ripped out the grass of their Mesa Road yard and xeriscaped. Their \$250 monthly water bill fell sharply. (BRYAN OLLER, THE GAZETTE)

Conservation, city officials have said for years, is a crucial factor in assuring adequate water supplies.

Colorado Springs Utilities metered customers in the 1940s, among the first in the state if not the West to do so. Metering is considered a primary way to reduce usage, because it allows customers to know, and be charged for, the amounts they use. It also helps detect leaks.

“When people don't know how much they're using, they don't know how much they're wasting,” said Utilities principal water engineer Kevin Lusk.

Denver didn't install meters until 1987; Fort Collins converted to meters in 1990.

Both cities reported a drop in water use after metering.

Because the Springs isn't on a river like many cities, “Water has been hard for our community,” Anne Seymour, Utilities' water conservation manager, said. “It (metering) was just a way to make sure people were more accountable for water they were using.”

Beyond metering, water-saving techniques have been around for a while.

National building codes were revised more than a decade ago to cut the gallons used when toilets are flushed and faucets are turned on.

Although there have been no recent changes, products under testing include extremely low-flow toilets, incinerating toilets and composting toilets, said Daryl Kuiper, plumbing and mechanical plan reviewer at the Pikes Peak Regional Building Department.

Utilities offers rebates for water-saving appliances, such as low-flow toilets, rain sensors and high-efficiency clothes washers that use 40 percent less water than normal machines. People think it's a good idea. Since the program began in 2002, Utilities has given rebates on 2,300 washing machines a year.

Residents shouldn't expect an immediate return on their investment. Although they'll save thousands of gallons annually, they'll wait seven years to recapture the cost of a lowflow toilet and even longer for a washing machine.

During the height of the drought in 2002, the city imposed restrictions on outdoor watering and adopted water rates last year that charge heavy users more.

Another regulatory change came a decade ago when the city changed the commercial landscape ordinance.

It eliminates berms and limits turf to 50 percent, although there's no restriction if lowwater native grasses are used.

It also requires soil be mixed with composting or organic material to improve water retention and root health. Trees and shrubs must be native or low-water users, such as ponderosa pine and some oak varieties. Invasive and water-slurping species like tamarisk are banned.

"The idea is to build a Colorado landscape not seen anywhere else in the USA," Seymour said.

Voluntary actions have followed suit. Homeowners associations and developers have relented in their pursuit of artificially verdant neighborhoods.

"We went from larger sod requirements where they wanted at least 50 percent sod to now, even in higher-end developments, they're allowing Xeriscapes if they're well-designed," said Jim Robinson, owner of Distinctive Terrascapes.

Responding to a demand for water efficiency, landscapers have converted hundreds of yards from grass to mulch, rock and low-water plants and installed efficient irrigation systems.

Underground irrigation systems are gaining popularity, notably a brand name called Netafim developed more than 50 years ago by the Israelis.

It's a grid of polyurethane pipe buried beneath soil and sod that waters root systems, pulling them down rather than encouraging them to spread on the surface as conventional sprinkler systems do, Robinson said.

Paula Kerr, plant manager at Rick's Garden Center and Plants, says it's clear the public is wising up.

Grass-seed companies have developed products that require less water, she said, and customers are getting a clue, too. "Everyone is big on Xeriscape for perennial beds," she said. "They go for the natives. Ten years ago, they didn't even care. They're getting more knowledge."

Whether through regulations or volunteer actions, the message is having an impact. Springs residents have dramatically cut water use in recent years.

A 2001 survey found that Colorado Springs' usage averaged 122 gallons per capita per day, among the lowest of 14 western cities.

Las Vegas topped the list at 230 gallons.

By last year, Colorado Springs' usage had dropped even more, to 100 gallons. The four-year curtailment saved 24 billion gallons of water that helped replenish the city's drought-depleted reservoirs.

Per capita usage continues to decline. The city's customers used about the same amount in 2006 as in 2005, despite the addition of about 2,000 customers.

Having converted golf courses to nonpotable water long ago, the city next wants to help industry voluntarily reduce usage through steps such as recycling and leak audits.

Utilities routinely monitors its system to stem losses. While some systems have a 30 percent loss rate, which includes fire-flow use, Utilities' rate stands at 9 percent.

Looking ahead, city officials hope to hold the line at 100 gallons per capita per day — not an easy task when about 20 percent of the population turns over annually.

“People coming in from all over the nation don't have the history,” Lusk said, “so we need to continue strong education programs just to stay where we are.”

Said Seymour, “Education is our biggest challenge — for people to know we live in a semiarid environment.

“Water isn't easy. It's not cheap,” she said. “We want our customers to have the water they need but use it efficiently.”

CONSERVATION TIPS

A WATER-SAVING LAWN

1. Install 60 percent or less high water-use turf, covering the remaining area with mulch, rock and drought-tolerant plants.
2. Amend soil with organic matter, tilling it as deeply as possible for root health and water retention.
3. Don't use high water-use turf on slopes.
4. Use automatic irrigation systems with rain sensors and electronic clock/controllers.
5. Use drip irrigation on trees and shrubs.
6. Don't waste water by allowing it to pool, run off or spray pavement.
7. Attend a class on xeriscaping. Colorado Springs Utilities sponsors classes at its Conservation and Environmental Center, 2855 Mesa Road, on the following dates:

- Saturday and June 16: xeriscape basics, 9 to 10 a.m.

- Saturday and June 16: xeriscape demonstration garden tour, 10:30 to 11:30 a.m.

SMALL STEPS AROUND THE HOUSE

Saving a little water here and there can add up to a lot. Colorado Springs Utilities provides the following savings for various low-use methods:

- Low-flow showerheads (2 gallons per minute) save 20 percent compared with standard (2.5 gpm) showerheads and up to 60 percent over pre-1994 models (5 gpm). The savings can total 2,000 gallons a year.

- High-efficiency toilets save 20 percent to 30 percent (about 2,500 gallons per year) over standard 1.6-gallon-per-flush toilets and 70 percent or more over older toilets. The annual savings can total 10,000 gallons to 18,000 gallons.
- Turning off the faucet while brushing your teeth can save more than 10,000 gallons a year for a family of four.
- Drip-irrigation devices vary in the savings they offer but can easily cut water use by 50 percent compared with above-ground irrigation.
- Rain sensors for lawns save about 3,400 gallons a year.
- Efficiency washing machines, which use 40 percent less water than standard washers, can offer savings of 5,600 gallons per year.

ONLINE

For information on rebates offered by Colorado Springs Utilities for efficient appliances, call 448-4800 or go to www.csu.org/environment/conservation_res/index.html

For more information on xeriscape resources and advice:

- Associated Landscape Contractors of Colorado, www.alcc.com
- Colorado WaterWise Council, www.xeriscape.org/articlearchive/articlesprinklersystemopr.html
- Colorado Native Plant Society, www.conps.org/conps.html
- Colorado Nursery & Greenhouse Association, www.coloradonga.org
- Colorado Springs City Forestry, www.springsgov.com/SectionIndex.asp?SectionID=43
- Colorado State University Cooperative Extension, www.ext.colostate.edu
- El Paso County Master Gardeners, www.coopext.colostate.edu/elpaso/horticulture
- U.S. Department of Agriculture, plants.usda.gov

5. NEW! Cities may rely on agriculture's lifeblood - water

[By BILL McKEOWN](#)

June 23, 2007 - 2:13PM

The ditch is nothing special, just a short stretch of cut earth running through a cow pasture from the High Line Canal to the wide, muddy Arkansas River.

But the Arkansas Valley farmers who built it — and the city folks who benefited from it — say the nondescript ditch is a harbinger of the future, a way to preserve Colorado’s agriculture, yet sate the thirst of its booming cities.

The small ditch and other infrastructure was built to allow Aurora and Colorado Springs to lease millions of gallons of water from the High Line Canal during the depths of the drought in 2003 and 2004.

The cities diverted most of the leased water higher on the Arkansas and used the ditch to transfer a smaller portion, as required by water law, from the High Line Canal to downstream users on the river.

In exchange, shareholders in the 120-year-old High Line Canal who leased the water received \$16 million. That was a badly needed windfall in the middle of several grim years for farmers in the Arkansas Valley, said Dan Henrichs, general manager of the High Line Canal Co. and a cattle rancher.

“It was a lifesaver,” agreed Bert Nesselhuf, who farms the same land his parents once did near Manzanola. He said many farmers used the first year of lease payments to pay off bank notes and the second year of payments to repair or buy new farm equipment.

The temporary water transfer, aided by recent changes in Colorado water law, was the largest in Colorado history and may serve as a template for future leasing deals.

In fact, there is a growing consensus among both farmers and municipal water suppliers that such leasing agreements - and even grander, more permanent leases now in the works - could be the way to head off an imminent clash over water between urban and rural Colorado.

Leasing, rather than buying, ag rights also could quell the fear of small towns that depend on agriculture that they will be sacrificed to the Front Range’s voracious appetite for Big Box stores and endless subdivisions.

Still, say farmers and water suppliers, leasing water cannot in itself stem a general decline in agriculture in Colorado, caused only in part by the pressures of urban growth.

Farmers and the small towns that depend on them, they say, must figure out how to adapt to an economy that has moved far from America’s agrarian roots.

TROUBLE AHEAD

There is nothing simple or easy about water in Colorado. Except this: By 2030, Colorado cities will experience a shortfall of water in the range of 630,000 acre-feet a year, according to a state study. That is eight times the amount of water Colorado Springs reaps from all its various sources in a normal year.

The Colorado Statewide Water Supply Initiative estimated 233,000 to 372,000 acres of irrigated farm land - about 10 percent of the state’s total irrigated land - would need to be taken out of production to meet that shortfall.

Water suppliers are looking at various options short of using ag water to bridge the gap, but none is particularly attractive. Most think the era of large transmountain diversion projects — the kind that supplies Colorado Springs with most of its water — is over.

Water conservation in one form or another has been adopted by many communities, but the savings won’t make up the shortfall between supply and demand, experts say.

Water reuse — treating waste water to drinking standards — remains an option, but it is expensive and fraught with public relations problems.

That leaves agriculture. Because farmers and ranchers in Colorado own about 90 percent of the water in the state, it doesn't take a divining rod to know cities are eyeing the water now running in their ditches.

In fact, it's been happening for years. Aurora has been particularly aggressive in buying agricultural water rights in the Arkansas Valley. Colorado Springs last bought agricultural water rights in the 1980s, but it too bought water in the valley when the sugar beet market collapsed in the 1970s. Pueblo, despite the aspersions its politicians and newspaper cast on urban water buyers to the north, also has bought water rights in the valley for municipal use.

The same trend is happening outside the Arkansas River Basin. The Parker Water and Sanitation District recently bought 13 ranches in Logan County just for their water.

Water suppliers such as Colorado Springs Utilities say they are approached weekly by farmers wanting to sell water rights. Still, such sales are hugely controversial.

Communities in farm country say buying up ag water is like cutting open a vein, drawing blood and leaving the patient to die. The loss of water, they say, results in dried up farms, lower land values, less revenue to governments, schools and businesses and, eventually, ghost towns.

Cities aren't particularly wild about buying ag water themselves. In the best case, the farm goes along with the water, and water managers say they aren't interested in getting into the ag business. In the worst case, the water is separated from the land, and the land often reverts to weed-filled prairie.

"After we bought the farms, I thought there has to be a better way than this," said Frank Jaeger, manager of the Parker Water and Sanitation District.

Jaeger's district has commissioned Colorado State University to study how irrigated agriculture can be preserved as a viable business while supplying water to an urban population expected to nearly double in the next two decades.

"I hate cliches like win-win," Jaeger said of the promise of leasing rather than buying ag water. "This is a business, and both sides have to walk away satisfied."

WATER IN THE BANK?

Despite the success of the High Line Canal lease, experts say there are significant legal, logistical, storage and political obstacles to overcome if even grander arrangements are going to happen.

That's because folks who own water, always one of the most precious resources in the West, are hugely protective of it. For example, legislators thought they were doing ag and thirsty cities a great favor when in 2002 they established a pilot program in the Arkansas Valley that created a water bank.

The program envisioned farmers electronically posting water rights they wished to lease and the price they wanted. By 2004, the experiment was abandoned by the Southeast Colorado Water Conservancy District because of a lack of participation.

Still, the idea of leasing water to cities while bringing in sure revenue remains appealing to farmers. Another water group, the Upper Arkansas River Water Conservancy District, recently indicated it may revive the idea of a water bank.

A similar group, the Lower Arkansas River Water Conservancy District, is proposing another water bank that it calls the “Super Ditch.” The scheme calls for shareholders in eight Arkansas Valley canal companies - but not the High Line - to offer long-term leases, 25 to 40 years, to other users in the Arkansas River basin.

Jay Winner, general manager of the district, said the super ditch would be owned and operated by farmers, who would decide how much of their water they wanted to lease.

Winner said the program is patterned after successful water banks that have operated for years in California, Idaho and Utah. He expects the water bank could begin operating by 2008 to 2010, supplying water only to users in the Arkansas River Basin.

Organizers have been approached by a group of small water districts in northern El Paso County that want to pipe water from the lower Arkansas River to recharge the Upper Black Squirrel alluvial aquifer that is being rapidly depleted by rural subdivisions. Winner thinks that pipeline could be in place as soon as 2012 if things go well.

Winner, though high on the promises of leasing, said grudges between canal companies and between farmers and towns and water organizations must be smoothed over. He also said leased water must be cheaper to potential customers than simply buying the water outright.

Farmers who own shares in the High Line Canal are taking a wait-and-see attitude. They said they want to see the details — especially how water from the various ditches would be valued, since their’s is particularly dear — before they’d commit to long-term leases.

Vernon John Proctor, a member of a prominent farming family near Rocky Ford, said he would prefer to lease water than sell it. But it chafes his chaps to be told by city folks — well-meaning or not — what to do with his property: “Too many people who don’t own water are trying to tell people what to do with it.”

And, he said, all the talk about leasing as the future clouds a fact some in the Arkansas Valley are loathe to admit: Farming is, in the end, a business. And a farmer who wearies of low crop or livestock prices, devastating weather, or encroaching urban growth eventually may sell out.

That’s been happening at an alarming rate. Colorado ranks third in the nation in the loss of agriculture land since 1992 — 2.89 million acres, according to a recent report by Environment Colorado. The state is projected to lose another 3.1 million acres by 2022.

Wayne Vanderschuere, water resource supply manager for Colorado Springs Utilities, said critics who accuse urban water suppliers of plotting the death of rural Colorado are being disingenuous. He said the shortfall in urban water supplies by 2030 is only 5 percent of the 90 percent of the state’s water owned by agriculture.

He said the effects of buying or leasing that amount of water would be negligible compared to such forces as the aging of the farm population, the growing demand for recreational water or global economic forces in agriculture.

Vanderschuere, like some of the farmers in the Arkansas Valley, said agriculture and the small towns that depend on it face a variety of challenges in the 21st century, just as mining and manufacturing did in the 20th. He predicted smart, efficient ag folks who hone in on profitable crops and livestock will survive.

Dennis Caldwell, who with his brothers owns the largest share of the High Line Canal water, said his two grandchildren have expressed interest in farming, and he thinks leasing ag water will help him pass on his large operation to them.

“It’s going to be different for them,” he said. “They’ll be a lot of new challenges, but it’s possible. Some of the bigger outfits, we’ll make it work.”

And the others, the farmers who have sold their water and those who probably will in the future?

“Well, there never was water here to begin with.”

6. Pueblo gains voice in Fountain Creek talks

[By PAM ZUBECK](#)

July 29, 2007 - 12:59AM

Jane Rhodes has lived beside Fountain Creek all her life and, at 70, still farms 1,100 acres next to it in Pueblo County.

As a child, she scampered through the shallow and crystal-clear stream to play with neighbors on the other side.

During the 1965 flood, she watched turbulent waters build two-story walls of debris from uprooted cottonwoods, willows, sand and dirt.

Today, the creek is a dirty, unpredictable river whose velocities and volumes reflect the growth of Colorado Springs, she said.

“More and more, water comes from the north,” she said. “The more growth north, the more cement, asphalt and what have you. Now, it is not a creek. Now, it’s a big river.”

Today, Rhodes is at the table with elected officials from Pueblo, Colorado Springs and Fountain trying to find ways to restrain and reshape the creek.

Called the Fountain Creek Vision Task Force, the group of 28 entities, including Sen. Ken Salazar’s office, hopes to make the creek a ribbon of trails, wetlands and flood-control projects.

“This time,” Rhodes said, “we finally are being recognized. Finally we are all sitting at the table to find out what to do. Let’s do something.”

Flooding in the Fountain Creek watershed, which extends from Woodland Park and Palmer Lake to Pueblo, isn’t new. Nor is pollution. As early as 1820, an explorer noted in his journal the creek was so befouled with buffalo dung that campers couldn’t use the water to brew coffee.

Early settlers chronicled how cloudbursts swelled the creek to a “swift flowing river.”

The creek had devastating floods in 1935 and 1965 and several times since.



(JERILEE BENNETT, THE GAZETTE)

Jane Rhodes has lived near Fountain Creek all her life. In the past few years she's lost about 400 acres of farm and grazing land in Pueblo County to erosion and flooding from the creek.

What's different today is that more people live near Fountain Creek and rely on it for irrigation and domestic water supplies and to dispose of treated wastewater.

The creek carries more water than would naturally drain into it, because Colorado Springs gets about 85 percent of its water from transmountain sources and discharges treated effluent into the creek.

Those flows will increase if Colorado Springs builds the Southern Delivery System. The pipeline from Pueblo Reservoir, which would bring 78 million gallons a day to a city on the verge of developing an additional 20,000 acres, would double the amount of return flows in the creek from imported water.

Today, the creek's average flow is 165 cubic feet per second, of which 37 percent is wastewater discharge.

But in 1999, after a heavy snow and pouring rains, water hurtled down the creek at 20,000 cfs, damaging sewer lines and overwhelming the Las Vegas Street sewage plant. About 70 million gallons of sewage spilled into the creek.

Erosion carved away acres of soil, prompting about 50 El Paso County property owners to seek property tax reductions because of the loss of land.

Rhodes did, too. Her family's 1,500 acres have been shaved by 400 acres through the years, largely in 1999.

The creek's 1,000-foot drop in elevation from Colorado Springs to Pueblo County speeds the water.

"By the time it gets down here, it's rolling," she said, pointing to the remains of a concrete and steel bridge swept away in 1999.

Flooding has changed the creek's course several times. A half-mile swath of Rhodes' grazing land today is an unusable scum-covered swamp and brush-filled lowland.

In the late 1990s, Rhodes got involved with the Pikes Peak Area Council of Governments Fountain Creek Watershed Technical Advisory Committee, formed to provide technical input for studies.

It's not the only effort aimed at the creek. Some others:

- In 1988, the U.S. Geological Survey developed a way to estimate transit losses for return flows of transmountain water discharged into the creek from Colorado Springs to the Arkansas River east of Pueblo. The USGS also set up a water-quality monitoring program on Fountain Creek.

- The Colorado Department of Public Health and Environment is studying the creek's E. coli bacteria levels. E. coli results from fecal pollution and can cause intestinal disease and death. Pueblo has routinely warned residents to avoid the creek's water because of elevated E. coli levels. The warnings often followed Springs sewage spills, which led state regulators in 2005 to impose record fines on the city.

The \$450,000 study, for which Colorado Springs will pay a third, is testing DNA of E. coli samples to determine the source — animal or human, which will point to the bacteria's origin, the first step in remedial action.

“There may be some people or an area contributing who may not know they're contributing,” Springs Councilman Jerry Heimlicher said at a recent meeting. “They may be able to make some steps to stop it from getting there.”

Springs Utilities regulatory services supervisor Keith Riley noted E. coli levels are highest during storms, which flush backyards and rural wildlife areas as well as parking lots and streets. “There are contributors from outside Colorado Springs,” he said. “It doesn't just come just from Colorado Springs.”

- The biggest study is a \$3 million project by the Army Corps of Engineers that looks at erosion, sedimentation and flooding. Started in 2000 and due next year, it will recommend construction projects. It's a list eagerly awaited by the task force, which wants to create a new vehicle to oversee the work. No one knows where funding will come from.

But some members and their constituents are tired of studies.

“In Pueblo, there's an urgency,” Pueblo City Councilwoman Vera Orregon said at a recent task force meeting. “We need to focus on the actual management, and we need to focus on that now. We've studied quality and quantity to death.”

Charles Wilson, the Corps' plan formulator, admits it's been a long haul.

Funding has been patched together with federal, state and local money, and 11 local sponsors, who have given amounts from \$3,000 to \$500,000.

“It can be difficult to reach agreement,” Wilson said, adding that overall, cooperation has been surprisingly good.

But the creek hasn't cooperated. Every major storm shifts the waterway's banks, rendering data gathered four or five years ago suspect, Wilson said.

“If we took cross section data four years ago, in a lot of cases that cross section won't look like that today,” he said.

For example, the Corps analyzed changes in channel length and how it has meandered and straightened from 1955 to 2003.

Still, Wilson insisted the data is “representative” and adequate to support the Corps' long-term project recommendations, which could include a dam, levees or wetlands.

Another hitch is that Colorado Springs has jumped the gun on its flood-control projects, which could complicate the Corps' ability to analyze data.

Using money collected from its controversial stormwater enterprise fees, the city is stabilizing banks on Sand Creek and doing other work on Cottonwood Creek, both major factors in the watershed.

“They’re at the point they can’t wait for us anymore,” Wilson said. “They’ve gotten ahead of us. My concern is the things we come up with in the watershed study, those things don’t contradict each other. We want to make sure they work well together.”

The city’s projects are funded with stormwater fees put in place this year without a vote of the people, belying Ortegon’s sense that urgency is lacking, Heimlicher said.

“We did it because it had to be done and it had to be done now,” he said. “We’re dealing with a gigantic ship that’s been going the same way for hundreds of thousands of years, and we’re trying to change its course. That’s not going to happen overnight.”

Springs Utilities, too, is busy. It started a sewer system upgrade in 2000 and has fortified dozens of pipes that cross channels. It also spent \$10 million on a project that allows the city to divert tainted creek water for retreatment.

In addition, the city has shifted its policy on drainage by abandoning concrete channels that speed water along, in favor of requiring developers to detain the water on site to slow its journey.

Those steps and the recent push for answers for Fountain Creek are unquestionably linked to the city’s plan to pipe water from Pueblo Reservoir.

Pueblo County, which has felt the brunt of Fountain Creek’s woes, is likely to have authority over how and where the pipeline is built under its land-use regulations. Some Pueblo residents, such as Pueblo Chieftain Publisher Bob Rawlings, oppose the project.

The Springs has been busy signing up partners to quell opposition. This spring, it struck a deal with water-rights owners in the lower Arkansas Valley, calling for each to pay \$300,000 to draft a Fountain Creek master plan.

The city also is active on the task force.

“Not having a regional consensus of what the problems are and what the solutions are has prevented projects from going forward,” said Springs Utilities water services manager Bruce McCormick. “The Vision Task Force is the best hope for coordination.”

Such pronouncements give some hope that the effort, this time, is more than just talk.

The prospect of a repeat of the 1965 flood brings a shudder to Pueblo Councilman Lawrence Atencio.

“It missed my house by half a block,” he said. “I remember as a 17-year-old working that summer and fall to dig all the mud out from all the homes down there. All my friends from a block away were completely washed out,” he said.

Today, sediment has built an 8-foot dike in places, making a flood more likely.

“We’re going to have to manage that somehow. Now is the time to start,” he said.

“Everyone involved in Fountain Creek is going to have to pony up.”

Rhodes feels she's given up plenty and fears what more water from Colorado Springs' additional growth will mean.

"It will wipe us all out," she said. "When land is gone, it's gone forever. You cannot get it back."

FOUNTAIN CREEK WATERSHED

The Fountain Creek watershed includes eight municipalities (Woodland Park, Green Mountain Falls, Manitou Springs, Monument, Palmer Lake, Colorado Springs, Fountain and Pueblo) and three counties (El Paso, Pueblo and Teller).

Creeks within the Fountain Creek watershed contribute about 15 percent of the drinking water for Colorado Springs and are a source of irrigation for more than 100 farms and ranches. The other 85 percent of Colorado Springs' water is pumped from west of the Continental Divide, and after use, this water is treated and discharged into Fountain Creek.

As Colorado Springs' population has increased, so has its water consumption and the runoff from its expanding system of storm sewers. Most of this water winds up in Fountain Creek. The mean annual flow of Fountain Creek has risen from a historical average of approximately 60 cubic feet per second to more than 230 cfs.

Flooding and erosion along the creek have accelerated the loss of aquatic and wetland habitats, contributed to the loss of hundreds of acres of productive farmland, and caused the foundations of roads and homes to crumble.

Parts of Pueblo's downtown business district lie directly within the historic floodplain of Fountain Creek. Pueblo's history includes devastating floods in 1921, 1935 and 1965.

PIKES PEAK AREA COUNCIL OF GOVERNMENTS

7. Backup pipeline proposal leaves Pueblo up a creek

[By BILL McKEOWN](#)

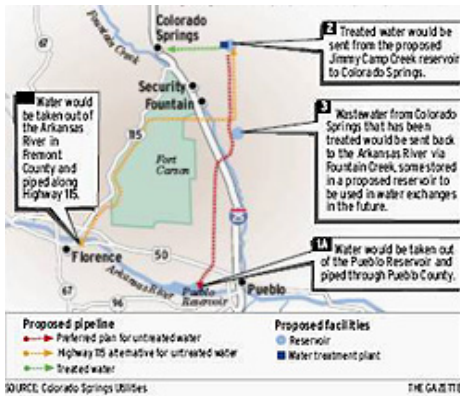
August 26, 2007 - 1:07AM

Developments in the coming year could radically change the look of the beleaguered Southern Delivery System, a \$1 billion water project designed to supply water to Colorado Springs during the next three decades.

Recent interviews suggest even a different version of the controversial project would have its own implications and perils. And, ironically, it wouldn't satisfy even the most bitter opponent of the pipeline project from Pueblo Reservoir, Pueblo Chieftain publisher Bob Rawlings.

In fact, an altered project might be a classic case of being careful of what you wish for, warned two political leaders from Pueblo and Colorado Springs.

In October, lawyers for Colorado Springs Utilities will be in District Court in Pueblo to challenge land-use regulations imposed by Pueblo County they say are designed to derail the pipeline system.



Proposed Southern Delivery System

The utility has spent about \$60 million planning a project that would pump water it owns in Pueblo Reservoir 40-plus miles through Pueblo and El Paso counties to Colorado Springs.

Utilities officials expect a judge’s decision in the civil suit by the end of the year. After that, possibly in December 2008, the Bureau of Reclamation is scheduled to release its decision on which of seven pipeline alternatives it will permit.

Utilities officials publicly remain optimistic they can overturn Pueblo County’s land-use regulations, called 1041, and win the bureau’s support for a pipeline from Pueblo Reservoir.

If they lose in court, however, either in Pueblo or on appeal, or the bureau nixes their preferred plan, officials said recently that one pipeline alternative would work best.

That alternative, first suggested by Springs developer Mark Morley but altered by the bureau, would bypass Pueblo County altogether. Instead, the utility would take the water directly out of the Arkansas River in Fremont County and move it northward through a pipeline built along Colorado Highway 115.

The utility would need the permission of Colorado water courts to take the water out of the river instead of the reservoir, and engineers would have to solve some technical problems such as sedimentation peculiar to diverting water from a river.

Still, senior Utilities employees Gary Bostrom and Bruce McCormick said the alternative could deliver the same amount of water to Colorado Springs as a pipeline through Pueblo County, about 74,000 acre-feet a year. The pipeline, though, would cost Utilities customers about 10 percent more.

There could also be a cost to our neighbors to the south, said Colorado Springs Councilwoman Margaret Radford. If the utility has to run its project through Fremont County, Colorado Springs might be less inclined to work on issues important to Pueblo County, she said. Those include managing water flows on the Arkansas River, enlarging Pueblo Reservoir and lobbying lawmakers on issues of interest to Pueblo.

“If we can’t go through Pueblo County, clearly the accommodations, compromises and concessions yet to be made, none of that is going to happen and they’re going to lose some control over this project,” she said.

Radford said Pueblo County could lose pipeline construction jobs and wind up with less water in Pueblo Reservoir. The Springs would have to exchange its reservoir water upstream for the right to divert from the Arkansas River. Utility officials say the reduction shouldn’t be enough to affect recreation at the reservoir.

Pueblo City Councilman Randy Thurston said moving the pipeline project out of Pueblo County would be “devastating.” He said a rupture between the two cities would jeopardize regional cooperation on other water issues, including solving problems on Fountain Creek and assuring a flow of water to Arkansas Valley agriculture.

If Colorado Springs Utilities is forced into a Highway 115 pipeline route, Thurston said, “I would do everything to fight it.”

Even the most influential foe of the Southern Delivery System, the Chieftain’s Rawlings, thinks the Highway 115 pipeline would be the “worst of all worlds.”

That’s because the alternative being studied by the bureau would allow Colorado Springs to release the 74,000 acre-feet of treated effluent down Fountain Creek, which Rawlings believes is already overloaded with Colorado Springs’ treated wastewater.

Rawlings said he has no problems with Colorado Springs taking water out of the Pueblo Reservoir and sending it back down Fountain Creek. But before that happens, he said, he wants Colorado Springs to solve flooding, sedimentation and water-quality issues he believes are largely the result of unchecked growth in the Pikes Peak region.

“It’s only fair that Colorado Springs return the quality and quantity of water they take out,” he said. He believes the only sure way to do that is to construct a dam on Fountain Creek to slow return flows and capture sewage spills.

Colorado Springs council members and Utilities officials have flatly rejected that suggestion, saying it wouldn’t work and would be horribly expensive. They have said Rawlings, despite what he may say, would never support a viable pipeline project no matter what Colorado Springs did.

“Rawlings has never had a rational reason for any of this,” Radford said. “My sense is he wants us to drink our own effluent, and it is based on his hatred of this city for his own reasons.”

There’s another potential obstacle: Fremont County. Commissioner Larry Lasha said it would be a mistake to believe the county is giddy over the prospect of hosting Colorado Springs’ pipeline project.

He said county commissioners have been briefed by Colorado Springs Utilities on the possible diversion from the Arkansas River. But he said it’s too early to say how likely that option is.

“Everything is conceptual right now,” he said. “We’re the ‘just in case’ right now. Are there pluses that go with it? Absolutely. Are there minuses that go with it? Absolutely.”

Lasha said county residents would have to look long and hard at the project and assure themselves it wouldn’t affect the quantity and quality of water that now flows down the Arkansas.

“There’s only so many straws that can be put in the river,” he said.

Building any water project in Colorado requires endless patience and boundless optimism. Radford and Utilities officials are confident the utility eventually will have a pipeline from Pueblo Reservoir, if only out of fair play:

Colorado Springs has long owned the water it stores in Pueblo Reservoir, and taxpayers here have paid 70 percent of the cost of building and maintaining the Fryingpan-Arkansas federal water project, of which the reservoir is a part.

“No one wants to talk about ultimatums and what-ifs,” Radford said. “The sense of regional cooperation that has come out of this — the agreements with the city of Pueblo, our work on stormwater and the Fountain — is absolutely the most important thing to happen in southern Colorado in a decade.”

8. Bridging rural, urban interests

[By ED SEALOVER](#)

September 16, 2007 - 1:41AM

The equation is as simple as two H's plus an O: Growing urban areas such as Colorado Springs and northern El Paso County need more water, and farmers, who use 85 percent of the state's water, are about the only people who can supply it.

But after big Front Range water districts dried up about 60,000 acres of southeastern Colorado farmland in the 1970s and 1980s by buying agricultural water rights, even cash-strapped farmers have been loath to give up claims to the lifeblood of their land. Government leaders have taken a defensive posture against any more “buy-and-dries,” and some have even worked to keep Colorado Springs and Aurora from using water to which they have rights.

It is somewhat peculiar, then, to see the Lower Arkansas Valley Water Conservancy District, which includes much of the once-fertile dust bowls, work feverishly on a program that would send water north to places such as the Springs and Monument.



(CAROL LAWRENCE, THE GAZETTE)

Crowley County Commissioner Matt Heimerich checked a headgate on the Colorado Canal that he uses to irrigate his 200-acre farm. The canal is fed by the Arkansas River.

But this time, farmers would get to keep cash and the water rights.

Under the plan known as Super Ditch, farmers could keep part of their fields dry each year, rotate unplanted areas annually and lease out the portion of their water allotment that they would have poured upon the fallowed land. Property owners from throughout the southeastern part of the state would pool their water into eight ditches and would contract yearly allotments to cities or water authorities needing more.

Lower Arkansas officials, who are leading the effort, hope to have enough infrastructure and contracts together to apply for change-of-use permits in water court by early next year. If so, it could lead to the first such ditch

company in Colorado and could establish a symbiotic relationship between formerly antagonistic urban and rural interests.

“Basically, we’re creating a new crop: water,” said Peter Nichols, water attorney for the Lower Arkansas. “The shareholders would realize the appreciating value of water.”

Farmers now own the water rights or lease the water from canal companies. But as many have retired, fled the agriculture business or found water to be more profitable than sugar beets or alfalfa, they’ve been faced with the hard choice of selling rights and essentially ending the life of their farms, or struggling along.

Selling rights not only caps the value that the farmers can receive for water at current prices but breaks up communities, said Matt Heimerich, a Crowley County commissioner and farmer. When farms go out of business, farm-supply stores go out of business, schools lose property tax revenues and government services of all types get neglected, he said.

Nichols proposed the idea that the farmers who agree to become a part of Super Ditch allow 25 percent of their land to lie fallow annually. In return, proponents say, they will get guaranteed income in lieu of the uncertainties that come with growing and harvesting crops on that land.

Without the pressure of having to make every inch of land produce, some farmers could start growing more experimental cash crops, which would require an investment in the farm businesses in the community, Colorado Farm Bureau President Alan Foutz said. They also would be likely to spend more money on restaurants or entertainment, also an economic boost.

The demand for water would be highest in dry years when cities must replenish their reservoirs. Those same dry years are when farmers would benefit most by allowing some land to lie fallow, Lower Arkansas general manager Jay Winner said.

Some water companies, like Colorado Springs Utilities, are unlikely to need water from the ditch every year but could purchase when it sees shortages, Utilities water manager Gary Bostrom said. Utilities has a water supply expected to cover city growth at least through 2040.

But regions such as northern El Paso County, which subsist mainly on nonrenewable ground water, could look to Super Ditch to not just supplement their current water supply, but to replace it. Gary Barber, manager of the Pikes Peak Regional Water Authority, which serves most of the northern area, said his group may be able to end its long search for a permanent water source if Super Ditch could construct a pipeline to get the water to the area.

“We have a demand; they have a supply,” Barber said. “It could be very, very important.”

Although Super Ditch would be the first major project of its kind in the state, small-scale fallowing and water leasing has occurred. The High Line Canal Company contracted with Aurora, which has long been seen as an enemy of the southeastern area, and both sides have reported benefits.

A more relevant comparison might be to Palo Verde Irrigation District in Southern California, which began a program in 2004 in which farmers can sign up to fallow as much as 25 percent of their land a year while metro areas declare a year in advance how much water they will buy.

Ed Smith, general manager of the irrigation district, said land value has increased and farmers’ incomes have become more stable.

Most Super Ditch planners say the biggest downside is likely to be a hit on migrant farmers and other laborers who won't be as needed without as much farmland in production. But Smith noted that laws aimed at illegal immigrants have made such help scarcer in his region, and southeastern Colorado leaders have indicated similar concerns about the labor pool.

One practical problem could be the question of permanency of the water supply for cities and counties that need it every year. Alan Hamel, executive director of the Pueblo Board of Water Works, said he has asked Lower Arkansas officials to clear up that concern, possibly by agreeing to long-term contracts.

Most importantly, proponents say, the loss of irrigated farmland that has marked the area for seven decades could slow to a trickle if economic pressure is taken out of the picture.

The number of Colorado farms recorded by the National Agricultural Statistics Service has fallen nearly in half, from 60,500 in 1936 to 30,700 in 2006. Meanwhile, a Statewide Water Supply Initiative completed in 2004 predicted that nearly 500,000 acres of farmland could be dried up by 2030 if the current rate of water transfer from agricultural to municipal use continues.

Some opponents of the idea will likely surface as Lower Arkansas leaders get closer to requesting the change-of-use decrees that will allow the project to go forward.

For now, though, the longtime rivalry over water between Front Range cities and rural farmers might be close to becoming a friendship.

"In the world of today, in all honesty, it's probably as close as you're going to get to a winwin," Heimerich said. "If I can keep the ground from blowing away and not damaging my neighbors, and someone will pay me several thousand dollars an acre to do that . . . why wouldn't I do that?"