YAHOO! NEWS

Too wacky? Moving water from flood to drought

Associated Press By SETH BORENSTEIN - AP Science Writer | AP – Fri, Sep 9, 2011

WASHINGTON (AP) — As the soggy East tries to dry out from flooding and Texas prays for rain that doesn't come, you might ask: Isn't there some way to ship all that water from here to there?

It's an idea that has tempted some, but reality gets in the way.

A Texas oilman once envisioned long pipelines carrying water to drought-stricken Texas cities, just one of several untested fantasies of moving water vast distances. Parched Las Vegas still wants to indirectly siphon off excess water from the overflowing Mississippi River. French engineers have simulated hauling an iceberg to barren Africa. There are even mega-trash bags to move heavy loads of water.

There's certainly plenty of rainwater available. Tropical Storm Lee dumped enough on the already saturated Mid-Atlantic, Northeast and Gulf Coast to bring 9.6 inches of rain across the entire state of Texas, according to calculations by the National Oceanic and Atmospheric Administration and The Associated Press.

"One man's flood control is another man's water supply," said Patricia Mulroy, general manager of the Southern Nevada Water Authority. "Doesn't it make you want to think about a larger distribution that helps both? That's the crazy part of this. It's a win-win. There's no loser."

But moving vast quantities of water is not simple or cheap, and thus not realistic, experts say. Mostly, it's too costly and political.

However, these dreamed-up concepts show that a quiet water crisis is getting more desperate.

"We will go to any lengths to avoid confronting the reality of water shortages," said University of Arizona law professor Robert Glennon, author of the book "Unquenchable."

"What all those zany ideas suggest are the traditional beliefs that we can control nature and there must be some oasis out there where we can go to, to import water."

But those are mirages, he said — tempting, but not realistic.

Mike Halpert, deputy director of the NOAA's Climate Prediction Center, knows the temptation. He's about to fly from Washington, which has had 7 inches since Monday, to Houston, which got about that amount of rain for the entire spring and summer. All that D.C. rain would be enough water for every person in Houston for 10 days.

He jested that he would love to carry water in his suitcases. He said colleagues have been "joking that we'll send Texas our water. Will they send us their oil? But I don't think that's going to fly."

The trouble with water is "there's enough quantity but it is not always in the right places," said G. Tracy Mehan, who was chief water regulator for the U.S. Environmental Protection Administration during the George W. Bush Administration.

So how about moving it?

"The short answer ... is that it costs too much. It's not a technical problem," said Peter Gleick, president of the Pacific Studies Institute and a MacArthur genius grant recipient for his work on water.

Las Vegas' grand proposal is to take water from the mighty Mississippi in a series of smaller pipeline-like exchanges among states just west of the Mississippi to refill the overused Colorado River. There are no official cost estimates, but it likely would be in the hundreds of billions dollars. Texas oilman T. Boone Pickens abandoned his plans for a massive water pipeline stretching across Texas to just moving water around the Texas Panhandle.

Water weighs a lot — about 8.3 pounds per gallon — so moving massive amounts, often up mountains, costs a lot, Glennon said. Gleick notes that conservation and efficiency are cheaper.

Building a pipeline to pump water from flooded areas is foolish because each year it is somewhere different that gets drenched, so you can't build something permanent based on a couple of years' unusual rainy weather, NOAA's Halpert said.

For purely moving water, Gleick likes a smaller-scale concept: the trash bag. A California firm has designed Spragg Bags "with the world's strongest zippers" that haul millions of gallons of drinking water from one place to another over the ocean, said inventor Terry Spragg. It's been used in Greece.

When asked the cost to haul excess water by bag from the flooded Northeast to Texas, Spragg declined to say. "It just wouldn't be practical. It's just too distant... Forget about taking it from New Jersey or Pennsylvania, there are sources that are closer."

If you want to go high-tech for water, desalination — taking salt out of ocean water — and reusing wastewater for drinking water are cheaper and more realistic, said Gleick, author of the book "Bottled and Sold: The Story Behind Our Obsession with Bottled Water."

In Big Spring, Texas, they are looking at reusing wastewater by treating it and then adding it to the fresh water supply. Orange County, Calif., has a state-of-the-art water recycling program. And on the International Space Station astronauts use a system that turns their urine into drinkable water. Tampa has a new $158 million water desalination plant that can produce as much as 25 million gallons of water a day from the sea.

While those who need more water say the challenge is just a matter of balancing out too much and too little, other experts say there is a bigger problem: 1 billion people on Earth don't have clean drinking water.

"Absolutely there's a water crisis, but it means different things in different places," Gleick said. "In Africa, it's people dying because they don't have safe drinking water. In Texas, it means people at risk and property being damaged because there's a natural drought. In some places, it might mean not enough water to make semiconductors and grow food.

"Nature always distributes water unevenly — that's just the way it goes," Gleick said.

In the 20th century in the United States, the answer to water shortages was to drill another well, tap another aquifer, build more dams, divert more rivers and build pipelines, Gleick said. But now "we're running into limits."

Politics is almost as big a barrier as price. Legal battles over water run rampant in U.S. history, especially out West. But now they have gone nationwide, along with shortages. North Carolina has sued South Carolina, Florida has sued Georgia and Alabama, and the Great Lakes states have banded together to fend off water diversions, Glennon said. The Great Lakes region has been in and out of court over water rights for about a century.

"People are concerned about water rights. Even in eastern water-rich states, you don't want to be giving it away," said Robert Holmes, who deals with the problem of too much water. He is the national flood hazard coordinator for the U.S. Geological Survey.

University of Colorado natural hazards professor Kathleen Tierney put it more bluntly: "As we say in Colorado, whiskey is for

drinking, water is for fighting over."

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Online:

Peter Gleick: http://www.pacinst.org/about_us/staff_board/gleick/

Robert Glennon: http://rglennon.com/books/unquenchable/

Southern Nevada Water Authority: http://www.snwa.com/

Spragg Bags: http://www.waterbag.com/