

Visalia Times Delta

Visalia panel adds insight to water crisis

Dennis L. Taylor

June 9, 2015



The challenges facing water supplies in the Tulare Lake Basin are unpredictable, stubborn and always moving – a lot like herding cats, a panel of experts told an audience Monday at 210 Connect in Visalia.

The panel comprised Maria Herrera, a California Water commissioner; Bill Tweed, an author and former naturalist with Sequoia National Park; Denise England, water resources program manager for Tulare County; Mike Chrisman, a farmer and former state Secretary of Natural Resources; and Mark Larsen, general manager of the Kaweah Delta Water Conservation District.

Though the drought is wreaking havoc statewide, the panel zeroed in on the Tulare Lake Basin and its four rivers: the Little Tule, Kaweah, Kings and Kern. The basin receives roughly 13 million acre feet of water annually (an

acre foot is enough water to cover a football field to a depth on 1 foot). The sources are mountain runoff, groundwater and imported water.

VISALIA TIMES-DELTA AND TULARE ADVANCE-REGISTER

State water losses 'huge,' new thinking required on drought, panel says

Of the managed portion, also called developed water – basically water that is stored or diverted – between 1998 and 2010, 95 percent went to agriculture, 4 percent to urban users and 1 percent to environmental restoration, Tweed said. The problem, he said, is the quantity we use.

"We are using two to three times more water than nature intended," Tweed said. "In terms of human demand, we've had a drought for more than a century."

Chrisman noted that for many decades we've been moving water from where it is plentiful to where it is scarce, a byzantine collection of canals and dams.

"There is a lot of water in the state," Chrisman said. "If we were to grow we needed a vast plumbing system."

Chrisman noted that the system was built to provide water for a population of 14 million to 15 million.

"The problem now," he said, "is we have 36 million people with straws in the ground."

'Lies, damned lies and statistics'

One of the problems when discussing water issues is the concept of "normal." As Tweed noted, there is really no such thing in California.

"I wish we would abolish the term," he said. "We live in a place that is extremely variable."

When water engineers, meteorologists and climatologists use the term "normal," what they mean is a statistical mean where normal is the middle of two extremes. One-third of the time a year is wetter than normal and one-third of the years are drier than normal.

As an example of the pendulum-like nature of these extremes, Tweed noted that the wettest year on record was 300 percent of normal, and the driest was 17 percent of normal. Over the past 1,000 years the wettest years have come in the past century.

This drought is nothing new, although it is possibly affected by climate change as well. There have been droughts over the millennia that lasted for centuries. There have been torrential rains that flooded California from Redding to Bakersfield, Tweed said. The message: Take today's statistics in context with history; otherwise the concept of "normal" will be skewed.

"There are lies, damned lies and statistics," Tweed said, quoting from Mark Twain, who popularized the phrase in America. "You can use statistics to prove just about anything."

Proposition 1 and the GSA

For many, Prop. 1 is a savior; for others, a disappointment – depending on personal needs. More than \$7 billion will become available for water projects in December 2016 when the first allocation is available.

Near and dear to the hearts of Tulare County residents is storage, specifically the Temperance Flat dam project at Millerton Lake. Herrera said that of the pool of money, \$2.7 billion is allocated for dams and other storage systems.

She emphasized that the projects built with the \$2.7 billion must serve a "public benefit," which does not directly include agriculture.

"Public benefit uses include ecosystems, flood control, recreation and water quality improvement," Herrera said.

But this is where the water gets murky. Agriculture can tap into projects if it contributes its own funding, or, as Chrisman put it, has "co-equal goals."

What will affect agriculture dramatically is a new law signed in January called the Groundwater Sustainability Act. It requires that groundwater basins, including the Tulare Lake Basin, balance its supply by 2027 – meaning the same amount of water is percolating into the basin's underground aquifers than is being pumped out.

The Tulare Lake Basin has been in a state of overdraft for decades.

"It will be a big challenge to reach sustainability in this area," said Larsen from the Kaweah Delta Water Conservation District.

Chrisman offered that agriculture has already started working toward the goal by using less water through technologies such as drip irrigation. Herrera questioned how the mandate will affect disadvantaged communities.

"In a lot of these rural areas, they don't even have running water," Herrera said. "Many of these communities have a single source of water. How are they supposed to make cuts?"

Look at the future, mate

When looking for a solution to a problem, it's always smart to look at how others solved the problem. Australia is at the tail end of a decade-long drought and has made significant changes in its water policies, including more government investment.

One of the efforts Down Under is "making many new investments in the urban water sector aimed at diversifying water supplies (such as desalination plants)," according to the Australian National Water Commission.

Desalination plants are expensive. There are already several working in California and one in the planning stages in Monterey County.

Chrisman said desalinization works, but only for the 70 percent of the state's population who live along the coast. Moving desal water further inland would be cost prohibitive, he noted.

Additionally, other countries, such as Israel, itself facing a major drought, are far more efficient in recycling water.

"These countries would never dream of using water just once," Tweed said. "Here, it's one flush and off to the ocean."

Dennis L. Taylor covers water issues for the Visalia Times-Delta. Email him at dtaylor@gannett.com.