

What to know about Calif.'s water bonds

By Matt Weiser, Water Deeply

Californians this year will vote on not one but two water bond measures totaling \$13 billion. Given that the state still hasn't spent all of the \$7.5 billion from the Proposition 1 water bond passed in 2014, it raises a crucial question: Does California really need another \$13 billion in water bonds?

As of December 2017, the state had allocated only about \$1 billion from Proposition 1. About half of the total money available from the bond is dedicated to new water storage under a complicated new process that funds only the "public benefits" of such projects. The first dribble of money from that pot is expected to be awarded later this year.

With all that money still coming, why two more water bonds?

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EDC working to keep mentally ill out of jail



El Dorado County Chief Probation Officer Brian Richart talks mental health. Photo/Susan Wood

By Susan Wood

People who live inside their heads don't thrive inside jail cells.

It can be said they also don't do well getting there – or even within the system that incarcerates them, for that matter.

That's what about 30 stakeholders discovered during a mental health meeting at Lake Tahoe Community College last week to launch Stepping Up. The U.S. initiative is supported by the National Association of Counties, El Dorado included.

The county passed a resolution a few years ago to make it a priority to come up with a plan to deal with this global crisis on a local scale. But nothing much happened. It was an oversight that the county's Chief Probation Officer Brian Richart apologized for.

Richart views the Stepping Up initiative as a way of doing business in keeping the mentally ill out of jail while maintaining the public safety in the community.

"It's about shifting our way of thinking," Richart, the

facilitator, told the audience made up of mental health professionals, affiliates and family members.

For years, if someone who's mentally ill made a scene in public, law enforcement was called out to restrain the situation and apprehend the person. Now there's a protocol to talk the person down and instead show empathy. The goal is to get that person to a safe place other than jail where even the most level-headed citizen may have extreme anxiety.

It seemed like an insurmountable task for law enforcement, but now there's special training because the risk of doing nothing as the problem increases is just too high.

The Public Policy Institute reported inmates statewide in California prisons numbered 112,300 in 2016. Estimates claim 15 percent of those incarcerated are mentally ill. Nationwide, it's estimated people with mental illness constitute 2 million inmates.

Most close to the issue agree the matter will only get worse without doing something as the number of homeless correlates with the mentally ill, and the division between the "haves" and "have nots" grows wider.

"Jails are not designed for the mentally ill," said Jeanne Nelson, president of the National Alliance on Mental Illness in El Dorado County.

Nelson has been frustrated by how long it's taken to get a plan in place, admitting the county is in a state of "catch up."

"We need to put a stake in the ground. If work was performed like this in the private sector, they'd be fired," the former Oracle corporate executive told *Lake Tahoe News*. "We need to catapult this thing forward."

But like a good steward of a cause, she added being hopeful

and gratified that the initiative is finally moving. She provided recognition to seeing Patricia Charles-Heathers, the director of the county's Health & Human Services Agency, in attendance.

"It's harder in rural communities because of access (to care)," Charles-Heathers told *LTN* after the May 16 meeting. She expects the problem will worsen with the stifling economy for the poor and disenfranchised.

"But we're on track," she said.

El Dorado County sheriff's Sgt. Michael Yarbrough nodded in agreement. Yarbrough dedicates much of his time to the cause, continuing to spearhead the county sheriff's response through the CIT program. He trains about 10 officers a year on the program that details a special crisis management protocol for **deputies going out on calls** involving the mentally ill.

May is Mental Health Awareness month.

After hearing countless stories from family members, Nelson got NAMI to take the lead on sending a grant opportunity to the county for its consideration. Richart announced the county is applying for \$400,000 with a \$100,000 match from El Dorado to carry the county through the planning process. More should be known in six months. Implementation of guidelines presents another chapter yet to be tackled – one that is sure to take more time and money.

But most would agree failure is not an option with lives at stake.

Just ask Tish Elliott, whose 24-year-old son Ross Collins suffers from a severe mental illness that's a cross between schizophrenia and bipolar disorder. Collins has made his way in and out of the system. About a year ago, he was roughed up and told to shut up when taken into custody by three Mono County sheriff's deputies who jumped on his back, Elliott

alleged. He was suicidal at the time.

“It’s the reason I moved here. My son was scared,” she said. “They treated him horribly and was told to act like a man.”

Like clockwork, the hospitalizations were once annual visits. Now they happen about every three months. There’s a cycle, a vicious one.

Elliott worries her son has reached the point of no return in respect to ever being able to live a normal life. He told her he paces and screams, so he doesn’t hear the voices in his head.

“My heart aches for every NAMI parent,” she said wearily. “I’m constantly looking for hope, and I’m hopeful as long as he’s stabilized.”

She took solace in hearing others’ stories and thinks telling hers is therapy. She attended the El Dorado County meeting to achieve both.

The Stepping Up report released in January 2017 outlines six questions county leaders can ask to determine the extent its local government may have on using a system that stems the tide on mental illness – especially with respect to clogging the jails.

The questions:

- Is our leadership committed?
- Do we conduct timely screening and assessments?
- Do we have baseline data?
- Have we conducted a comprehensive process analysis and inventory of services?
- Have we prioritized policy, practice and funding improvements?

· Do we track progress?

More Californians shun registering with a political party

By Associated Press

More than a quarter of California voters aren't registered in a political party, making independents the fastest growing share of voters in the state.

Registration numbers released this month by the Secretary of State show that as of April, 4.73 million Californians are registered as "no party preference," up by 1 million voters since 2014.

Read the whole story

Nev. AG's office launches website to aid sex assault victims

By Ramona Giwargis, Las Vegas Review-Journal

Nevada Attorney General Adam Laxalt this month unveiled a

website for sexual assault victims as part of his initiative to reduce the backlog of untested rape kits.

The website, which has been under construction for months, features resources for survivors, law enforcement contact information and details on Nevada's initiative to test thousands of backlogged rape kits. It also includes statistics on testing, DNA matches and arrests made. The data will be updated monthly.

According to the attorney general's office, roughly 7,584 untested kits were housed in Nevada at its peak. Data released in February by the Metropolitan Police Department showed that 4,750 sexual assault kits in Southern Nevada remain untested. The website said 6,108 kits have been sent for testing, and 3,811 tests have been completed.

Read the whole story

Small Nev. businesses struggle to find qualified workers

By Bailey Schulz, Las Vegas Review-Journal

Small-business owners in Nevada have hit a wall finding employees with the right skill sets. A 2018 survey by Nevada State Bank and Applied Analysis found more than two-thirds of businesses find it somewhat or very difficult to recruit qualified candidates. The state's education system and a lack of economic diversification may be at fault, experts say.

Jeff Grace, chief executive officer of information technology service company NetEffect, said it's been increasingly difficult to hire qualified candidates in recent years amid a robust economy. His company currently has 23 employees and three job openings.

Nevada had the nation's highest job growth rate in 2017, according to the U.S. Labor Department. While this is a sign of a burgeoning economy, it can lead to a disproportionate labor market – one with more job openings than qualified candidates.

Read the whole story

Nevada still top gold producer in the nation

Nevada's mines produced 5.64 million ounces of gold in 2017, according to reports compiled by the Nevada Division of Minerals.

This total was up 3.2 percent from 2016. The average annual price of gold increased slightly from \$1,251 per ounce in 2016 to \$1,257 per ounce in 2017.

Nevada continues to be the nation's top gold producing state, contributing 72 percent of the total U.S. gold production in 2017 of 7.88 million ounces, as reported by the United States Geological Survey. Nevada produced 5.6 percent of the total world gold production in 2017, ranking fifth behind the countries of China, Australia, Russia and Canada.

Silver production in 2017 decreased 5.2 percent to 8.48

million ounces from the 2016 production level of 8.95 million ounces. The average annual price of silver decreased slightly from \$17.14 in 2016 to \$17.04 per ounce in 2017. Nevada's copper production in 2017 was 146 million pounds, down 9 percent from 2016. The average price of copper in 2017 was \$2.79 per pound.

Industrial mineral production in Nevada in 2017 included aggregates, barite, diatomite, dolomite, gypsum, lime and limestone, lithium compounds, magnesium compounds, molybdenite, opals, perlite, salt, silica sand, and specialty clays.

Gaming regulators create opening between pot, casinos

By Richard N. Velotta, Las Vegas Review-Journal

Can a gaming licensee lease a building from a businessman who also rents to someone in the marijuana business?

Yes, the Nevada Gaming Commission unanimously determined Thursday.

In what was the first case in which regulators had to make a determination of whether a gaming licensee was too closely aligned with the marijuana business since industry policy makers clarified the issue earlier this year, commissioners voted unanimously to support a license for Apollo Coin Corp. for The Lodge at St. Rose.

Read the whole story

Wildfire risks are high again this year

By Ragan Adams, The Conversation

Memorial Day marks the traditional opening of the summer travel season. This year the American Automobile Association projects that more than 41.5 million Americans will hit the road over Memorial Day weekend, nearly 5 percent more than last year and the most in a dozen years.

For many years, AAA has urged drivers to prepare for trips through steps such as testing their car batteries, checking for engine coolant leaks, and making sure their tires are in good shape. The group also recommends packing a mobile phone and car charger, a flashlight with extra batteries, a first-aid kit, a basic toolkit, and drinking water and snacks for all passengers.

But travelers should also think about conditions beyond their cars. As coordinator of Colorado State University's Veterinary Extension programs, I help people in rural and urban communities manage all kinds of threats that can affect them and their animals, from disease to disasters. When people travel in unfamiliar places, far from their social safety nets, they should know what challenging conditions exist and prepare appropriately. In particular, anyone visiting the western United States this summer should understand risks associated with wildfires, since once again the risk of fires is high in many areas.

Understanding fire conditions

The 2017 wildfire season was one of the most challenging years

on record. More than 71,000 wildfires burnt over 10 million acres. Federal agencies spent nearly \$3 billion on fire suppression, and 14 firefighters were killed in action.

This year the U.S. Forest Service expects another above-average fire season. Many parts of the Southwest that depend on winter precipitation for moisture are dry. Coupled with above-average growth of grasses last year, conditions are ripe to turn a harmless spark into flames. Wildland fire potential is forecast to be above normal through August across portions of the Southwest, Great Basin, Southern California and the Pacific Northwest.

Wildland fires are fickle beasts that behave erratically, depending on wind speed and direction and the landscape over which they travel. If you are close to a fire, it can be difficult to tell which way the fire is moving. Firefighters, police and other first responders have access to information that defines the scope of a fire and the potential pattern of its movement. They use this information to define evacuation areas to keep people safe. It is essential to respect these boundaries.

Travelers in unfamiliar territory should research hazards they may face (including events such as blizzards, floods and tornadoes, as well as wildfires), and prepare accordingly. Here are some basic recommendations:

- Know where you are. GIS systems are convenient, but Siri may not always be available. Carry paper maps that you know how to read.
- Share your exact travel plans with friends or family. Inform them when you change course. Someone else should know where you think you are.
- Develop situational awareness. Pay attention to your environment: Seeing or smelling smoke is significant. Avoid rising rivers and flooded roads.
- Have a communication backup plan if cell service is not

available. Sign up for reverse 911, subscribe to an emergency communications service such as Everbridge, or listen to AM channels advertised on road signs in rural communities.

- Check weather reports and respect red flag advisories.
- Respect warnings from local emergency managers and cooperate with first responders.

The human factor in wildfires

People trigger most wildfires in the United States. According to a 2017 study, 84 percent of wildfires federal and state agencies were called to fight between 1992 and 2012 were ignited by humans. Wildfires can also be ignited by lightning or sparks from railroads and power lines.

People start fires by discarding cigarettes carelessly, leaving campfires unattended or inadequately extinguished, and losing control of crop fires and prescribed burns. The 2017 study calculated that human actions have tripled the length of the national wildfire season, extending it into spring, fall and winter.

The U.S. Forest Service has been educating Americans about their role in preventing wildfires since 1942, when Disney lent it images of Bambi the fawn and his forest friends for an educational poster. The campaign was very popular and confirmed that an animal was an effective fire prevention symbol. Because Bambi was only on loan, the agency had to find a new animal symbol. A majestic, powerful and appealing bear fit the bill.

The Smokey Bear Wildfire Prevention campaign, the longest-running public service advertising campaign in U.S. history, started in August 1944. The initial poster depicted a bear pouring a bucket of water on a campfire. In 2001, Smokey's catchphrase was updated to "Only You Can Prevent Wildfires."

Smokey's message to prevent unwanted and unplanned outdoor

fires is as relevant and urgent today as it was in 1944. By learning about campfire safety, safe management of backyard debris burns, and protecting houses and property from wildfire, Americans can make themselves safer, both on the road and at home.

Ragan Adams is the coordinator for the Veterinary Extension Specialist Group at Colorado State University.

Water safe to consume in Douglas County

The precautionary “boil water notice” issued for Cave Rock and Skyland Water System on May 17 has been rescinded.

Results from the bacteriological testing show both rounds of sampling came back clean.

A computer error at the Cave Rock Water Treatment Plant led to the boil notice.

Making a cleaner, greener, environmentally safe sunscreen

By Yousong Ding, The Conversation

As the temperatures rise and Americans swarm to the beach, they slather on sunscreen to protect against the sun's harmful UV radiation that causes skin cancer. As they splash and swim, few give thought to whether the chemicals in the lotions and sprays are safe for marine organisms such as the fish and corals living in these coastal zones.

The bad news is that mounting evidence suggests that certain chemicals in these radiation filters are bleaching the corals and killing fish. The good news is that there is a greener, cleaner and safer alternative in the works.

The sunscreens widely available belong to two major categories: physical and chemical. Physical sunscreens contain tiny minerals that act as a shield deflecting the sun's rays. On the other hand, chemical sunscreens use many synthetic compounds that absorb UV light before it reaches the skin.

Killer chemicals

But these lotions wash off in water. For example, for every 10,000 visitors frolicking in the waves, about 4 kilograms of mineral particles are washed into the beach water each day. These minerals catalyze the production of hydrogen peroxide, a well-known bleaching agent, at a concentration high enough to harm coastal marine organisms. In fact, up to 14,000 tons of sunscreens are released into the water each year. Active ingredients in these sunscreens, minerals and synthetic organic compounds, are putting 10 percent of the global reefs under stress, including 40 percent of coral reefs along the coast.

One of these ingredients is oxybenzone, a synthetic molecule commonly used in chemical sunscreens and known to be toxic to corals, algae, sea urchins, fish and mammals: A single drop of this compound in over 4 million gallons of water is already enough to endanger organisms. Unfortunately, its concentration in coastal water is already significantly higher than its

toxic limit, though not yet deadly, and might be accelerating coral bleaching. To save their marine ecosystem from further destruction, legislators in Hawaii passed a new law banning chemical sunscreens containing oxybenzone and another harmful ingredient, octinoxate. The law will take effect Jan. 1, 2021.

Sunscreen from algae

Protecting ourselves from UV rays is nothing new. Many organisms including microbes, plants and animals have evolved ways to guard themselves. These organisms produce small molecules that absorb UV rays and block radiation from entering cells and damaging the DNA. Unlike physical and synthetic chemical sunscreens, these naturally available compounds are environmentally friendly and biodegradable. As such, these natural products have the potential to be safer compounds for commercial sunscreens.

In my laboratory in the College of Pharmacy at the University of Florida, we are interested in combing the world for naturally occurring chemicals that have applications in health, agriculture and environment. Recently, my colleagues and I have discovered a more efficient way to harvest shinorine – a natural sunscreen produced by microbes called cyanobacteria.

Shinorine belongs to a family of natural products, called mycosporine-like amino acids, and is made up of two amino acids and one sugar. Many aquatic organisms exposed to strong sunlight, like cyanobacteria and macroalgae, produce shinorine and other related compounds to protect themselves from solar radiation. The cosmetics industry is already infusing products with shinorine as a key active ingredient. Commercial supplies of shinorine come from marine red algae that grows slowly in large tidal pools that experience frequent environmental changes. That means that conventional extraction method is time-consuming and unpredictable.

To ramp up shinorine production, we sought a fast-growing strain of cyanobacteria that would thrive under predictable conditions. This took a lot of work! We decoded the genetic blueprints – genomes – of more than 100 varieties of cyanobacteria from marine and terrestrial ecosystems and selected one, *Fischerella* sp. PCC9339, to cultivate in the laboratory.

To our delight, after four weeks this strain produced shinorine, but unfortunately not enough. To produce more we then transferred a set of genes that encode the instructions to make shinorine, into one freshwater cyanobacterium (from Berkeley), *Synechocystis* sp. PCC 6803, which grows fast with just water, carbon dioxide and sunlight. Using the engineered cyanobacterium, we produced a quantity of shinorine comparable to the conventional method – but we did it in just a few weeks instead of one year that's needed to cultivate red algae.

By advancing the method to produce more shinorine and other UV-absorbing natural products, we hope to make “green” sunscreens more available – to protect our skin and the lives of the creatures we are so eager to see.

Yousong Ding is assistant professor of medicinal chemistry at University of Florida.