NEWS CLIPS

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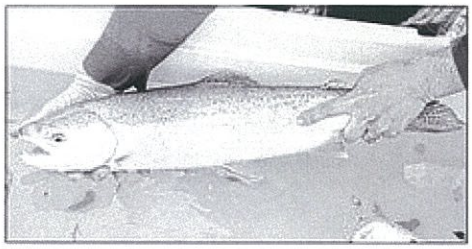
Resource Conservation and Public Outreach

Organized by date

Fish passage cost poses worry

$60M effort aims to assist steelhead trout

By Gretchen Wenner
Ventura County Star 1/24/2015



This steelhead trout was photographed in 2012 at the Freeman Diversion Dam near Saticoy. A $60 million fish ladder will be constructed at the dam to help the endangered species recover.
CONTRIBUTED PHOTO

The $60 million price tag for a new fish passage on the Santa Clara River has local water managers reeling — and not with rods and lines.

The sum is only part of what will be spent in coming years to keep water flowing to area farmers and cities while also restoring habitat for endangered steelhead trout. In all, hundreds of millions of dollars are expected to go to efforts that either directly benefit the fish or create replacement supplies for river water that will be sent to the ocean rather than used for irrigation or drinking.

The agency footing much of the bill, meanwhile— the United Water Conservation District — has an average annual budget of roughly $20million. Its members include growers and cities from Lake Piru to the coastal edge of the Oxnard Plain. All will see costs rise in the future to pay for such projects.

The scenario has been brewing for years but is taking firmer shape now as United draws up plans to comply with federal Endangered Species Act requirements.

When a National Marine Fisheries Service official addressed United's board on the issue last week, a crowd packed the meeting room at the district's Santa Paula headquarters. The fisheries service, part of the National Oceanic and Atmospheric Administration, is working with United on plans for the fish passage at the district's Freeman Diversion Dam near Saticoy.

Anthony Spina, who supervises the fisheries service's Southern California branch, told attendees the Freeman dam is "a key item" in the river's lower watershed that is of "exceedingly high priority" for his agency.

"It is the first structure steelhead come to when attempting to migrate," Spina said. The fishcan travel from rivers to the ocean, returning as adults to native streams to spawn.

United built the Freeman dam in 1991, before Southern California steelhead were declared endangered in 1997. The $31 million facility already has a fish ladder, but the original $1.3 million structure was later found deficient. The diversion dam channels Santa Clara River flows to facilities that replenish groundwater later pumped from the Oxnard Plain.

Lynn Maulhardt, United's board president, brought up concerns of district growers that construction of a costly new fish passage could be done with some certainty.

"We have a structure that was permitted that now is lost," Maulhardt said, referring to the original fish ladder.

He and other board members brought up lingering concerns about the actual size of historic fish runs. The river was stocked with hatchery fish for decades to lure sport fishermen to the area. The district in 2008 compiled a 738page record of trout related newspaper clippings from1870tothe mid1950s that documents such stocking efforts. While the district's official position now is that steelhead historically lived in the river and still occur there, many of its members from longtime farming families in the area remain skeptical.

"Behind the scenes, these are issues we deal with," Maulhardt told Spina after listing hundreds of millions of dollars worth of projects the district faces. "I want you to know that."

"We get it," Spina replied.

Maulhardt also stressed that United would build the fish passage and comply with the law.

Mark Capelli, a scientist with the fisheries service who coordinates regional steelhead recovery, said this week concerns over estimates of historic fish runs are misplaced. Recovery efforts aren't an attempt to meet old, unreliable numbers. Rather, a complex plan for territory from Santa Barbara County to the state's southern boundary aims to create systems where diverse subgroups can thrive and ultimately allow the species to survive in the long term.

"We're not trying to restore historic conditions," Capelli said. "We're trying to make sure the fish are viable."

If all goes well, construction of the fish passage could start in 2019 after a lengthy permitting process. The experimental structure now being developed will require building a large model to scale for extensive testing in a Washington warehouse.

John Krist, CEO of the Farm Bureau of Ventura County, was at the meeting with Spina. He said afterward that growers in the county's $2 billion agriculture industry want to make sure an "extremely costly fish passage" won't be deemed insufficient in a few years, as happened before.

"They're not happy to pay more for less water from a project that's been in the ground for decades," Krist said of the Freeman dam. "That's just hard for a lot of people to swallow."

Take tour of water facilities

Not usually open to the public

The Acorn

The Las Virgenes–Triunfo Joint Powers Authority will conduct a free tour of its water recycling, wastewater treatment, composting and solar-power facilities from 8:45 a.m. to 1 p.m. Sat., Feb. 7.

A bus trip will take guests to facilities not normally open to the public: the Tapia Water Reclamation Facility, the Rancho Las Virgenes Composting Facility and a six-acre solar power generator.

Boarding and exiting a bus, moderate walking and some stair climbing should be expected.

A complimentary light lunch will be provided during the concluding Q-and-A session.

Advance registration is required. Sign up at www.LVMWD.com or call (818) 251- 2200.

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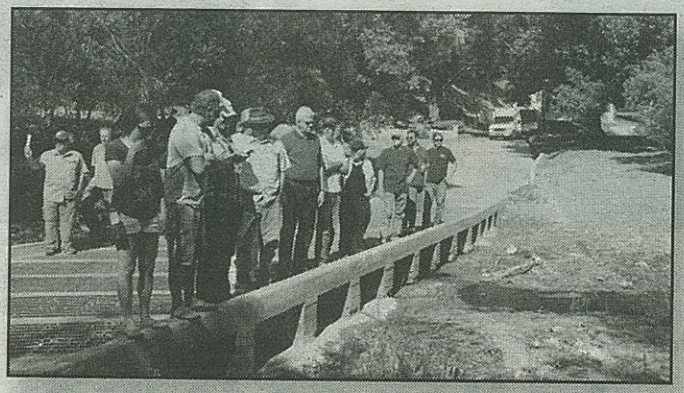

Saturday, February 7, 2015
from 8:45 a.m. to 1:00 p.m.

- Pre-registration is a requirement - sign up at www.LVMWD.com; walk-ins cannot be accepted.
- Complimentary breakfast snacks and a light lunch will be provided.
- Guests must be age 12 or older; children under 18 must be accompanied by a responsible adult.
- Inclines and stairs should be expected; comfortable walking shoes are recommended.
- Preference is given to customers of Las Virgenes Municipal Water District and Triunfo Sanitation District.

LAS VIRGENES MUNICIPAL WATER DISTRICT

TRIUNFO SANITATION DISTRICT

Tours are offered by the Governing Board of Las Virgenes-Triunfo Joint Powers Authority

http://www.lvmwd.com/your-water/quarterly-facility-tours

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The Acorn
1·22·2015

Water supply off-limits in Montana town after Yellowstone River oil spill

Pipeline expected to remain closed after oil spill in Montana.

By MICHAEL MUSKAL
LA TIMES 1/21/2015

After a Yellowstone River oil spill, a Montana town has to have its water trucked in

More than 5,000 people in the rural Montana city of Glendive have been told not to use municipal water because elevated levels of cancer-causing benzene were found downstream from a weekend crude oil spill into the Yellowstone River.

Officials said they were distributing fresh water being trucked in after a warning was posted for the residents not to drink or cook with the city water supply because of the high level of benzene, which has a sweet odor and could be a health danger over the long term.

About 1,200 barrels of crude oil, or approximately 50,000 gallons, leaked Saturday from the 12-inch Poplar pipeline near where it crosses the Yellowstone.

The pipeline is owned by Bridger Pipeline, a subsidiary of True Cos., a privately held Wyoming company. The pipeline was shut down within an hour of the discovery of the leak, and more than 50 people are working to clean up the spill, the company said.

"It is an inconvenience for everyone in the community, no doubt," Glendive Mayor Jerry Jimison told the Los Angeles Times. "But we have truckloads of water being supplied, and the company has taken full responsibility, stepping up to the plate and helping bring everything back to normal."

The spill seeped into the river and contaminated the city's water supply, according to the federal Environmental Protection Agency.

"The initial results of samples taken from the city of Glendive's drinking water system indicate the presence of hydrocarbons at elevated levels, and water intakes in the river have been closed," the EPA said in a statement.

Jimison said he was hopeful that the water system would be cleaned and brought back on line this week. No illnesses have been reported from the contamination.

"I got up Sunday morning, showered, brushed my teeth and had two cups of coffee and went to church," the mayor said, noting he used municipal water hours after the spill. "I'm doing just fine."

A flyover spotted sheens along the river, including at a drinking-water intake 25 miles north of Glendive, according to the Montana Department of Environmental Quality. Gov. Steve Bullock has declared a state of emergency in two counties along the river.

The results from the first sample taken from the Glendive Municipal Water Treatment Plant showed an elevated level of volatile organic compounds, predominantly benzene, according to the state agency. Long-term exposure of high levels of benzene can cause leukemia. But officials minimized the risk of short-term exposure.

"While the elevated levels are above the level for long-term consumption, the scientists who reviewed the data at the Centers for Disease Control [and Prevention] have ... [said] that they 'do not see that domestic use of this water poses a short-term public health hazard,'" the state said in a statement.

Glendive is a city of about 5,500 to 6,000 people, having grown a bit in recent years because of the oil boom in North Dakota, whose border lies about 40 miles east. It is the county seat of Dawson County in the farming country near Makoshika State Park.

UPDATES

5:25 p.m.: The story was updated throughout with new details.

The story was originally published at 2:32 p.m.

LA TIMES 1/21/2015

Water stress takes toll on California's large trees, study says

Drought, fire-suppression techniques and changes in land use have made California forests denser and more susceptible to fast-moving wildfires, a study to be released Tuesday has found. (Brian van der Brug / Los Angeles Times)

By TAYLOR GOLDENSTEIN
LA TIMES 1/20/2015

Water stress and changes in land use take toll on California's large trees, study says Scientists say the changes raise crucial questions about how California manages its forest land

Drought, fire-suppression techniques and changes in land use have made California forests denser with smaller trees and more susceptible to fast-moving wildfires, a study to be released Tuesday has found.

Researchers at UC Berkeley, UC Davis and the U.S. Geological Survey compared tree surveys conducted between 1929 and 1936 with surveys conducted between 2001 and 2010. They found that large tree density fell across California, with declines of as much as 50% in the Sierra Nevada highlands, the south and central Coast Ranges and Northern California. At the same time, the density of smaller trees increased dramatically.

The firemen are faced with this notion of when a fire is reported and started, do they go out and ... put the fire out, or do they let it burn?- Mark Schwartz, professor of environmental science and policy at UC Davis

Drier conditions caused by drought reduce water available for trees to grow while making it easier for fires to start and spread. Scientists say the changes raise crucial questions about how California manages its forest land to prevent and control wildfires as temperatures increase.

"The current drought in California highlights our need to understand the role of water balance in these systems and how it will be affected by global temperature rise," said the study's lead author, Patrick McIntyre. "Forests and woodlands cover a third of California, so this has important implications for our state."

The study, to be published in the journal Proceedings of the a National Academy of Sciences, found that declines in large tree density were greatest in areas with the greatest increase in water stress (when there is more demand for water than water available).

Large trees, which are important for storing carbon from the air and providing food and habitat, can be more vulnerable to drought and water stress, McIntyre said.

"Declines in their numbers are concerning," he said.

Researchers found that densities of small trees increased in almost every region of California surveyed. Small tree density within the Sierra Nevada highlands more than doubled, and it increased more than 50% in the Sierra Nevada foothills, the North Coast region and the Transverse and Peninsular ranges.

Oak trees, which thrive in warm, dry climates, increased in density as pine density decreased, the researchers found.

Nature has no rival when it comes to patience. It took millions of years for the gnashing of tectonic plates to form the magnificent riot of rocks that is home to the unspoiled rivers and rolling oak woodlands of California's inner Coast Range. (Julie Cart)

California has a Mediterranean climate, McIntyre said. Almost all of its precipitation comes in the winter, and in the summer it dries out. A lack of year-round water availability limits the amount of water stored in the soil and can hinder tree growth, he said.

Higher temperatures, which cause earlier snowmelt and more water loss through evaporation and plant transpiration, compound the water scarcity problem for larger trees.

Fire and timber management practices also play a major role in forest structure changes, the researchers said. The common reaction to wildfires is to quickly suppress them. But the study raises questions about how to adjust intervention techniques to allow healthy burns without jeopardizing human safety.

Mark Schwartz, professor of environmental science and policy at UC Davis and director of the John Muir Institute of the Environment, studies the effect of climate change on wildfires.

A denser forest allows fire to travel faster, causing more devastation, he said. After a fire, smaller trees grow that are more likely to catch fire, and the cycle continues.

"These are historically fire-maintained ecosystems," Schwartz said. "The firemen are faced with this notion of when a fire is reported and started, do they go out and bring out helicopters, trucks and people and put the fire out, or do they let it burn?"

But prescribed burns and tree thinning can be controversial, said David Ackerly, a researcher involved in the study and professor of integrative biology at UC Berkeley.

Duane Shintaku, deputy director for resource management for the California Department of Forestry and Fire Protection, said letting a fire burn is never an option. The agency's goal is to keep fires to less than 10 acres, he said.

"We're protecting private lands and public lands where there's many lives at stake and homes at stake, [and] infrastructure … and you can't tell someone 'You know what? We're just going to see what would happen if we wait to see if it gets big,'" Shintaku said.

Over the last 50 years, Shintaku said, logging has decreased significantly, which also contributes to the increased density of California forests.

The department has a number of techniques to manage forests, Shintaku said, including using machines and people to thin trees, harvesting usable materials for wood products and energy conversion, and igniting small prescribed burns. The strategy keeps forests healthy by eliminating diseased trees and harmful insects.

From July 1, 2012, to June 30, 2013, Cal Fire's Vegetation Management Program staff burned 7,786 acres of trees with prescribed fires. An additional 8,777 acres of trees were mechanically removed, usually when burning was too dangerous.

Still, California has much work to do to improve forest management, Shintaku said.

"We have to start going after it because we're playing catch-up right now," he said.

National Briefing

MONTANA

Oil detected in water supply

Drinking water was being trucked into Glendive after traces of oil from a spill in the Yellowstone River turned up in the town's water supply.

Crews working to clean up the estimated 50,000 gallons of oil were hampered by ice covering much of the river. Bridger Pipeline of Casper, Wyo., said the break in the 12-inch steel pipe happened Saturday morning about 9 miles upstream from Glendive, a town of 5,300 near the North Dakota border.

— ASSOCIATED PRESS

LA Times
1/20/2015

California drought could end with storms known as atmospheric rivers

Long-range forecasts call for Southern California to get slightly above-average rainfall in March and April. But that will be counter-balanced by above-average temperatures. (Allen J. Schaben / Los Angeles Times)

By TONY BARBOZA *contact the reporter*
LA TIMES 1/19/2015

Powerful storms known as atmospheric rivers have broken 40% of California droughts since 1950
Atmospheric rivers, ribbons of water vapor that extend for thousands of miles, pull moisture from the tropics

California's drought crept in slowly, but it could end with a torrent of winter storms that stream across the Pacific, dumping much of the year's rain and snow in a few fast-moving and potentially catastrophic downpours.

Powerful storms known as atmospheric rivers, ribbons of water vapor that extend for thousands of miles, pulling moisture from the tropics and delivering it to the West Coast, have broken 40% of California droughts since 1950, recent research shows.

"These atmospheric rivers — their absence or their presence — really determine whether California is in drought or not and whether floods are going to occur," said F. Martin Ralph, a research meteorologist who directs the Center for Western Weather and Water Extremes at the Scripps Institution of Oceanography at UC San Diego.

The storms, which flow like massive rivers in the sky, can carry 15 times as much water as the Mississippi and deliver up to half of the state's annual precipitation between

December and February, scientists say. Though atmospheric rivers are unlikely to end California's drought this year, if they bring enough rain to erase the state's huge precipitation deficit, they could wreak havoc by unleashing floods and landslides.

Scientists using a new type of satellite data discovered atmospheric rivers in the 1990s, and studies since then have revealed the phenomenon's strong influence on California's water supply and extreme weather.

This month, a group of government and university scientists, including Ralph, are launching a major field experiment to better understand atmospheric rivers as they develop over the Pacific. Through the end of February, some researchers will fly airplanes above storms as they pass through, while others will monitor them from ships hundreds of miles off California. As the storms make landfall, the scientists will collect data with ground-based instruments.

"We're going to measure the heck out of them," Ralph said.

Scientists will use the information to try to improve atmospheric river forecasts, including where they will hit hardest and for how long. That could help communities prepare for flooding and allow water managers to make better use of storm runoff.

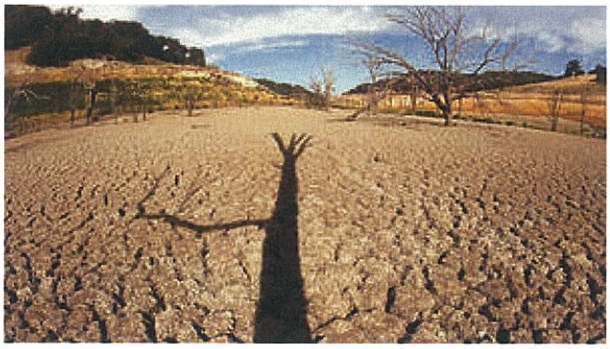
These atmospheric rivers -- their absence or their presence -- really determine whether California is in drought or not and whether floods are going to occur.- F. Martin Ralph, a research meteorologist who directs the Center for Western Weather and Water Extremes at the Scripps Institution of Oceanography at UC San Diego

California usually needs about five good atmospheric rivers each winter to fill reservoirs, stimulate spring vegetation growth and build snowpack to healthy levels, said Michael Anderson, a climatologist for the California Department of Water Resources. But how much the storms boost the state's water supply depends on the characteristics of each one, including how cold it is, whether it makes landfall toward the north or south, and whether the precipitation falls mostly as rain near the coast or as snow in the mountains.

Jay Jasperse, chief engineer for the Sonoma County Water Agency, calls atmospheric rivers "our water supply up in the air." The agency, which operates two reservoirs in the Russian River Valley, one of the state's most flood-prone watersheds, has been seeking more precise forecasts to make better decisions about releasing water from reservoirs to accommodate storm runoff or conserving it to use as drinking water.

"We want to better handle these short, intense rainfall events," Jasperse said.

If atmospheric rivers fail to arrive, California could be in serious trouble. That's what happened last winter, when a ridge of high pressure lingered off the West Coast for months, blocking storms and intensifying the drought.



Now in its third year, the drought in California has reached record-breaking levels of dryness, with more than half of the state under the most severe level of drought. In some of the hardest hit communities, taps have run completely dry, leaving hundreds of households with no access to running...

An atmospheric river broke through last February but didn't bring enough rain to make a big improvement. In December, a strong atmospheric river drenched Northern California, but much of it fell as rain near the coast rather than snow in the mountains. That means the state will need several more big storms by the end of next month to build up its snowpack, which in the Sierra Nevada remains at less than half of normal.

As much as Californians might hope for a series of atmospheric rivers to sweep in and end the three-year drought, experts warn that so much rain at once could bring devastation.

California's most severe storm event on record was caused by a series of atmospheric rivers that began in December 1861 and poured rain for weeks. The storms caused such extensive flooding in the Central Valley that the state Capitol was temporarily moved from Sacramento to San Francisco.

Ten years ago, an atmospheric river brought record-setting rain to Southern California, causing a mudslide that killed 10 people in the Ventura County beach town of La Conchita.

Atmospheric rivers are expected to grow stronger over the century as global warming increases the amount of water vapor that can be lifted out of tropical oceans and pushed to higher latitudes.

A 2011 simulation by the U.S. Geological Survey found that a hypothetical megastorm — an atmospheric river event so strong it happens only once every 100 to 200 years — could be more catastrophic than a major earthquake, over several weeks bringing 10 feet of rain and hurricane-force winds, widespread flooding, landslides and $300 billion in property damage.

Dale Cox, a USGS project manager who oversaw the disaster scenario, said atmospheric rivers "provide us water, but they are also a major source of our calamity."

"Everybody's hoping for them," he said, "but we don't want too many."

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