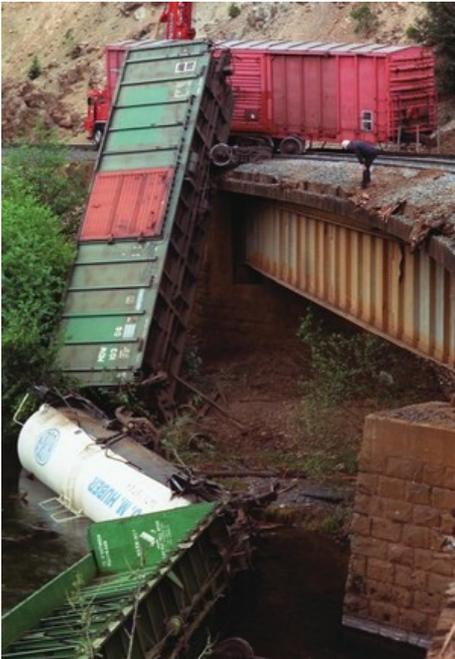


20th anniversary of Cantara Loop spill: Measures taken to keep Sacramento River clean

By [Dylan Darling](#)

Posted July 9, 2011 at 9:36 p.m.

[Email](#) | [Discuss](#) | [Share »](#) | [Print](#) | [A](#) [A](#) [A](#)



RECORD SEARCHLIGHT FILE PHOTO

A Southern Pacific supervisor assesses the derailment of a tanker car into the Sacramento River July 14, 1991. Within minutes of the accident, the toxic herbicide in the car was moving down the river, killing all life between the spill and Lake Shasta.



Cantara Loop chemical spill

On a July night in 1991 — 20 years ago this week — a tanker car loaded with a toxic chemical was in the middle of a train climbing out of the Sacramento River Canyon from Dunsmuir to [Mount Shasta](#).

Heavy locomotives and full boxcars were at the end of the 97-car Southern Pacific train, but light, empty cars flanked the tanker car.

It was a configuration destined for disaster. Like a shoestring yanked at both ends, the train snapped into a straight line as it traversed the treacherous Cantara Loop bridge, catapulting the toxic tanker car into the pristine waters of [the Sacramento River](#).

The ensuing spill tested those who cleaned it up, left a legacy of lawsuits and led to an overhaul of the train tracks along the Upper Sacramento River. While the river has been reborn and plants along its banks since have regrown, Cantara left these lasting marks on the north state.

Ruptured in the plunge, the tanker spilled its deadly load — more than 19,000 gallons of metam sodium, a soil fumigant that kills nematodes, fungi and weeds — into the river. In the next week it killed every fish, crayfish, insect and all other aquatic life in a 45-mile stretch of the river from Cantara Loop to [Lake](#)



Most Popular

[Viewed](#) | [Commented](#) | [Emailed](#)

- Police track Redding burglary suspect through obscene forehead tattoo, driver's license**
 Updated 7/12/2011 at 2:25 p.m. 85 comments
- Washington boy, 2, dies in Castella parking lot accident**
 Published 7/12/2011 at 9:50 a.m. 76 comments
- Anderson woman accused of stealing \$29K from R&R Quality Meats**
 Published 7/12/2011 at 3:24 p.m. 75 comments
- Vulgar tattoo triggers suspicion; Redding police say man forged church check**
 Published 7/12/2011 at 10:56 p.m. 49 comments
- DA's office warns homeowners of costly charge**
 Updated 7/12/2011 at 1:31 p.m. 24 comments

Photo Galleries



Shasta.

"It was just an unbelievable scenario — one of those nightmare-type events," said Robert Crandall, assistant executive officer of the Central Valley Regional Water Quality Control Board.

The spill is still considered the worst inland ecological disaster in the state, and while the fishery in the river has returned, the spill wrought other lasting changes.

Learning as they went

Response to the spill included more than 60 agencies, working out of dual command posts in Siskiyou and Shasta counties, said Scott Zaitz, an environmental scientist with the Water Quality Control Board. Bound by the mission of rescuing the river, none of those involved in the cleanup had ever dealt with anything like it.

Chemists crafted metam sodium to turn into toxic gas when put into a farmer's field.

"They knew everything about it in soil because that was its natural use," Zaitz said.

They didn't know what it would do in water.

Then a scientist for Shasta County Environmental Health, Zaitz teamed with his counterpart George Day from the Water Quality Control Board to sample water along the Sacramento River in the weeks after the spill.

The first day the river's water killed much of the life that it once cradled as the chemical coursed through it. Shasta County sheriff's deputies tacked up warning signs over boat ramps along the world class fishing corridor "Don't touch the water."

Along the river fish loaded onto the shoreline or crammed into tributaries, trying to swim away from the choking cloud.

"So many that you could walk across the backs of the fish to go up there," Zaitz said.

The spill killed more than 1.1 million fish, most of them — some 749,000 — were rifle sculpin, rugged rock lovers that grow to about 4 inches, said Mark Stopher, environmental program manager at the state Department of Fish and Game's Redding office. Second hardest hit were the river's signature fish, rainbow trout. Stopher said the spill killed nearly 310,000 trout, or more than 8,000 per river mile. The rest of fish killed in the spill were bass, suckers and squawfish.

After the toxic blob moved into Lake Shasta the following week, Southern Pacific turned to an experimental technique of pumping air into the contaminated water, as well as spraying the water skyward using tanker trucks on barges. The exposure to air hastened the decay of the chemical.

The efforts blocked what biologists had feared would be an expanded dead zone deep into Lake Shasta. The focus then moved to restoring the long-stretch of the Sacramento River decimated by the spill.

State biologists decided to let the river mostly heal itself, waiting four years until



RECORD SEARCHLIGHT FILE PHOTO

Crews repair the tracks in the days after a Southern Pacific train derailed and spilled toxic herbicide into the Upper Sacramento River in July 1991.

Documents

- [Fish kill from Cantara Loop spill](#)
- [Overview of Cantara Loop spill](#)

North Market Street fire photo gallery

Blumb Bakery

Front-yard waterfall

Weather

Currently

36-Hour

Your Photos



Currently
67°

Overcast
Wind: S 7mph

Today
82°

63°

TORNADO ALLEY LIVE

[More Weather »](#)

Calendar

JUL

JUL

JUL

BROWSE

13

14

15



WEDNESDAY

THURSDAY

FRIDAY

MORE

Open Mic Night

Maxwell's Downtown Eatery

7 a.m.

Native American Stories

Redding Library

1 p.m.

Prime Cinemas Blood Drive - Get a FREE Movie Pass!

Prime 11 Cinemas, Anderson

3 p.m.

Shasta Stitchers July Events

See Description

6:30 p.m.

Hot Summer Nights Ice Cream Fiesta

Leatherby's Family Creamery

6:30 p.m.

[More Events »](#)

Business Directory

Search

Browse

Business: e.g. salon

Location: e.g. Redding, CA

Search

Powered by [Local.com](#)

resuming trout stocking programs along the stretch, said Mike Berry, a senior DFG environmental scientist. He said they did so because the ecosystem had to grow from the bottom up before the trout could again take hold. If they'd been stocked earlier, they would have been stuck in the river starving.

"It would be like running off (all the wildlife) on the African plains and putting the lions back in before zebras and everything else (returned)," he said.

Now the river is revived, Stopher said.

"I don't think you can tell a difference between now and July 14, 1991," he said.

Humans harmed as well

Along with the ecological devastation wrought by the chemical spill, Cantara caused lasting health problems for the railroad workers, others who helped clean it up and Sacramento River Canyon residents.

Three years after the spill the state, Southern Pacific and other companies involved with the tanker car agreed to a \$38 million settlement. In the settlement, Southern Pacific paid \$30 million; GATX, the tanker's owner, \$5 million; AMVAC, the chemical's maker, \$2 million; and J.M. Huber, which leased the tanker, \$1 million.

While part of the settlement covered claims by the railroad workers and other first responders to the spill, residents in affected river towns filed separate lawsuits. In all there were about 1,500 personal injury claims, said Don Arbitblit, an attorney the Lief Cabraser Heimann & Bernstein law office in San Francisco.

He said adults were paid \$1,000 to \$100,000 each about three years after the spill.

"The overall payment varied on the severity of the injury," Arbitblit said.

A toxic cloud of gas rose up from the tainted river after the spill, he said, causing nose, throat and eye ailments.

In February 2010 another wave of money came to the children of the first responders as a piece of the settlement locked away until the youngest reached age 18, Arbitblit said. The 767 beneficiaries of the Minors' Medical Benefits Trust Fund divided \$1 million, with each receiving a check for \$1,300.

Those payments were likely the last of Cantara's legacy, Arbitblit said.

Changes to the tracks

The chemical spill wasn't the first time that a train car tumbled off the tracks at Cantara Loop. In 1976 a car loaded with Ivory Soap and other sundries flew into the river in a derailment eerily similar to the chemical spill, said Day, the senior water resources control engineer for the Water Quality Control Board. But since the chemical disaster there's been an effort to make it the last.

Union Pacific acquired Southern Pacific in 1996 and poured more than \$10 million into improvements along the tracks passing through the Sacramento River Canyon.

The company replaced wooden rail ties with concrete ties; regraded the loop and changed how trains operate in the canyon, said Aaron Hunt, railroad spokesman. Union Pacific shrunk the length of trains traveling along the canyon, reduced their speed and upgraded the locomotives pulling the trains. The locomotives are now spread throughout each train.

The most noticeable change to Cantara Loop is a massive guardrail, beefy enough to stop a locomotive from falling into the river.

"Hopefully that barrier will never have to be tested," Hunt said.

© 2011 Record Searchlight. All rights reserved. This material may not be published, broadcast, rewritten or redistributed.

[Email](#) [Discuss](#) [Share »](#) [Print](#)

[Recommend](#)  64 recommendations. [Sign Up](#) to see what your friends reco

Related Topics

- [Department of Fish and Game](#)
- [Lake Shasta](#)
- [Mount Shasta](#)
- [Sacramento River](#)



Also in Local news

[More](#)

- [Appellate court upholds woman's sentencing in fatal text-messaging crash](#)
- [Man accused of trying to steal Amtrak bus in Redding ruled insane](#)
- [Redding weather: Possible light showers in forecast](#)

Comments » 6

[Hide](#)

July 9, 2011 10:33 p.m.	robthenob writes: The first year the river was opened back up for fishing was amazing. We would go to Dunsmuir an limit in half an hour and everything was over two pound. The vast majority at that time were native. I have seen many more plated fish as time has progressed but the natives are still strong. Great river for fishing. Catch and release is the only way to go IMO when it comes to the native trout.
July 10, 2011 9:39 a.m.	fnlrun#339425 writes: The wackos tried to make this the Exxon Distaster times 10. After everying was cleaned up- nobody could tell a difference.
July 10, 2011 10:39 a.m.	fnlrun#339425 writes: " In the next week it killed every fish, crayfish, insect and all other aquatic life in a 45-mile stretch of the river from Cantara Loop to Lake Shasta" This was so unbelievably NOT TRUE it was staggering. RS must be hard up for a slow news weekend they have to rehash this event.
July 10, 2011 12:13 p.m.	JohnsConscience writes: I'm amazed at the resiliency of mother nature... And I know she will deal with climate change too. Lots of chicken littles out there. If I am wrong, I will adapt instead.

July 10, 2011
2:20 p.m

shasta_mtn writes:

In that photo of the man peeking over the side, he looks like 'big' Jimmy Plank, the former SP Road Forman of Engines (RFE). Nowadays you'd get nailed with a rules violation by not having fall protection in place. Now 20 years later, "little" Jimmy is the UP RFE/MOP at Dunsmuir and not much has changed for trainmen.

[Suggest removal](#)

[Reply to this post](#)

July 10, 2011
5:23 p.m

ClownsToTheLEFTofMe_JokersToTheRIGHT writes:

in response to [fnlrn#339425](#):

☞☞ The wackos tried to make this the Exxon Distaster times 10. After everying was cleaned up- nobody could tell a difference.

I've worked with this fumigant that is highly carcinogenic and you take this issue to lightly .

Maybe you forgot about the Cuyahoga river in Ohio that was on fire because of all the chemicals dumped into it from all the companies that were along it and if you have ever fished in the Detroit river there are signs everywhere not to eat so many of a certain species of fish in a certain amount of time .

All those "Wackos" out there are protecting you from being poisoned from big business .

I'm sure some out there will blame the Unions though .

By the way , how is Iron Mountain doing these days ?

[Suggest removal](#)

[Reply to this post](#)

Share your thoughts

Comments are the sole responsibility of the person posting them. You agree not to post comments that are off topic, defamatory, obscene, abusive, threatening or an invasion of privacy. Violators may be banned. [Click here for our full user agreement.](#)

Username * Don't have an account? [Sign up for a new account](#)

Password * Can't remember? [Reset your password](#)

Comment

[Preview comment](#)

Comments can be shared on Facebook and Yahoo!. Add both options by [connecting your profiles.](#)

Features



Games

Have some extra time on your hands? Play this game and more!



News on Facebook

Become a fan, get updates and breaking news.



North State Photo Contest

Submit your best North State Photo for a chance to win!

On the Web: [Online Databases](#) [Health](#) [Blogs](#) [Engagements & Weddings](#) [Shasta Outdoor Fun](#)
[Find Redding Jobs](#)

Online Exclusives: [Games](#) [Bands](#) [Crave](#) [Dining Guide](#) [Site Map](#)

Useful Links: [Newspaper archives](#) [Special Sections](#) [Legal Notices](#) [Media Kit](#) [Usage Statistics](#)

Special Features: [Hotels](#) [Contests](#) [Online Coupons](#) [Photo Galleries](#) [Purchase Photos](#)

Business Directory: [See directory links](#)



Scripps Interactive Newspapers Group

© 2011 The E.W. Scripps Co.

[Privacy Policy](#) | [User Agreement](#) | [About Our Ads](#)

[More news from our local partners »](#)