



FloodWise

WINTER 2020

PROTECTING LIVES AND PROPERTY IN OUR COMMUNITY SINCE 1927

Give Your Levee Some Love

It's reassuring to know first responders—police, fire, and ambulance—are a 9-1-1 call away. But there's another emergency system in place that you might not know exists. The levees that line our rivers are part of it. ❤️

Though levees may look like elevated walking and cycling paths, they're actually engineered structures that make up part of a sophisticated flood control system that protects us. In fact, the Sacramento region owes its very existence to levees.

In his book, *Battling the Inland Sea*, author Robert Kelley writes about Sacramento's first flood in 1850, the year the city was born, "The town of Sacramento, as these events revealed, was built in the middle of an inland sea that the Indians had warned appeared almost annually on the Valley floor. Few in the city, however, knew or talked with the Indians."

The 1850 flood led to the city's first levees, which quickly gave way in the high-water season of 1852. Since then, a succession of floods has resulted in taller and sturdier levees. Dams, reservoirs, weirs, canals, bypasses, and other solutions followed, eventually combining to create the flood control system we depend on today. In that system, levees are the last line of defense, the sturdy guardians that stand between floodwaters and countless lives.

At American River Flood Control District, our job is to inspect, mow, repair, and monitor the levees so that they're able to serve when the need arises.



The City of Sacramento... is considered to be at the highest risk of flooding of any major city in the nation.

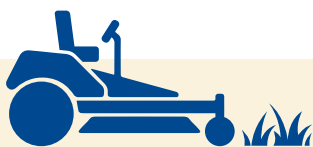


Phase I Environmental Site Assessment, American River Common Features General Reevaluation Report

U.S. Army Corps of Engineers Environmental Engineering Branch Sacramento District

APRIL 2012

Ensuring Your Safety



Mow

Keeping the grass short allows us to get a clear view of the levees.



Inspect

We inspect every levee—to look for any problems that could lead to a levee failure.



Repair

If we find any problems, we make necessary repairs.



Update

Two Rivers Bike Trail

The American River bike trail (Jedediah Smith Memorial Trail) is one of our region's most celebrated features. Though it's been in use since the 1970s, the original vision for a trail running along both sides of the American River has yet to be realized.

The 3.4-mile stretch between the H Street Bridge and Tiscornia Park at Jiboom Street, across the river from the existing trail, presented a special challenge. Thanks to erosion from the 1986 flood, the space between the river, levee, and private properties was too narrow for a trail in one quarter-mile stretch. Yet, running a heavily trafficked trail along the top of the levees would have made maintaining the levees through this critical stretch of river extremely difficult.

Through a collaborative process between the City of Sacramento, U.S. Army Corps of Engineers, and property owners, a workable route was found this year. The proposed path will run along the river side of the levee for most of the distance. Where that area is too narrow, the trail will travel along the crown of the levee for about 1,500 feet before descending back down to the levee base.

The city has prepared and presented an environmental impact report and expects to begin trail construction in 2020.

New Technology to Inspect Old Pipes

Part of the levees' history is buried within them. Pipes that convey gases and liquids have been run through the levees since the Gold Rush era. An early survey indicated that there were about 400 existing pipes running through the levees we maintain, though the old documentation is poor and includes duplicate entries, incorrect locations, and pipes that were removed.

Part of our task of maintaining levee integrity is knowing the location of every pipe that runs through our levees and if they need to be sealed, removed, repaired, or replaced. That's why we took advantage of a California Department of Water Resources (DWR) grant program that covers the costs of ground-penetrating radar technology to look for suspected pipes.

We also took advantage of a DWR grant to use video inspection technology to determine the condition of the stormwater drainpipes. Drainage pipes corrode over time and must be replaced. The pipes can also become filled with silt and debris. And the gates that prevent backflow can get stuck or fail to function properly. Any of these conditions can reduce a pipe's ability to carry away stormwater, which can lead to neighborhood flooding.

Before the video inspections, we had to visually inspect pipes that could run for up to 250 feet, which was all but impossible to do. The grant is allowing us to inspect 47 drainage pipes much more efficiently. Following the inspections, DWR will review the findings and help prepare a pipe rehabilitation plan that outlines and prioritizes the repairs.

Share the Trail

Our levees are used for so many activities that it's easy to forget how vital they are to our region's safety. At the American River Flood Control District, our job is to keep the levees in flood-ready condition, which means you'll often see us on the levees performing maintenance activities.

Please Watch for Heavy Equipment

Some of our responsibilities require using heavy equipment, including long-arm mowers that can kick up rocks and debris. Rather than inconveniencing people by closing down levee sections while we work, we do our best to share the levee with people and pets.

By following these simple courtesies, you can help us maintain that open policy:

- Stay aware of your surroundings when walking or cycling on or near levees.
- Never assume an operator can see or hear you. They can seldom do either.
- Stay back or signal operators before passing near equipment.
- Never cross under the extended mower arm.
- Never sneak by when a tractor or dump truck is backing up.
- Keep pets leashed and well away from equipment.

REMEMBER, operators of large, noisy equipment can't always see or hear what's happening around them. When they become aware of pedestrians, cyclists, or pets in potential danger, operators have to halt operations to protect public safety. Stopping work, sometimes several times a day, increases costs for taxpayers (like you) who pay for levee maintenance.



We mow, inspect, and repair the levees so that they stand strong against floods.

Learning from History

The Great Flood of 1861-1862 was one for the history books. The warm atmospheric-river storm dropped almost 10 feet of rain in 43 days and melted the Sierra Nevada snowpack. The combined rain and snowmelt overwhelmed the young city—sending it to the bottom of a great inland sea.

Waiting on the Next Megastorm

The 1862 storm was unusual, but geological evidence shows that megastorms like it have hit California about every 200 years. No one can predict when the next one will come, which is why maintaining our levees matters so much.



The flooding that began in December of 1861 continued well into the spring. Getting around still required a boat when this image was drawn in March of 1862.



FloodWise: A publication of the American River Flood Control District.

OFFICE: (916) 929-4006 **EMAIL:** info@arfcd.org **www.arfcd.org**

BOARD OF TRUSTEES

Brian F. Holloway
Cyril A. Shah
Rachelanne Vander Werf
Steven T. Johns
Tamika L'Ecluse

GENERAL MANAGER

Timothy R. Kerr, P.E.

SUPERINTENDENT

Ross Kawamura

OFFICE MANAGER

Malane Chapman

BOARD OF TRUSTEES' MEETINGS

Open to the public
Second Friday of every month at 11:00 a.m.

185 Commerce Circle
Sacramento, CA 95815

Employee Spotlight

Scott Webb, Field Supervisor

Scott didn't have to travel far to join the district this fall—just from the levee bottom to its top. Before the district asked him to come on board, Scott was the maintenance supervisor for the American River Parkway with Sacramento County Regional Parks. In that role, Scott worked alongside and collaborated with Ross Kawamura, superintendent for the American River Flood Control District, and other district staff. That's why Ross knew Scott could take on his role when he retires.

"When the district folks said, 'We need you,' I decided to make the move," says Scott. "I get to continue working on the parkway, managing people, maintaining equipment, and protecting the environment. I also appreciate the levees' role in flood protection—and I like the view from the top."

Scott holds a bachelor's degree in management and served in the U.S. Air Force for 26 years, where he oversaw aircraft maintenance as a squadron leader. While it won't be easy to fill Ross' work boots, we feel lucky that Scott agreed to answer the call.

Numbers to Keep Handy

- American River Flood Control District (ARFCD)
(916) 929-4006 • www.arfcd.org
- The Sacramento Area Flood Control Agency (SAFCA)
(916) 874-7606 • www.safca.org
- County of Sacramento
3-1-1 • www.saccounty.net or www.sacflood.org
- City of Sacramento
3-1-1 • www.cityofsacramento.org or www.cityofsacramento.org/utilities