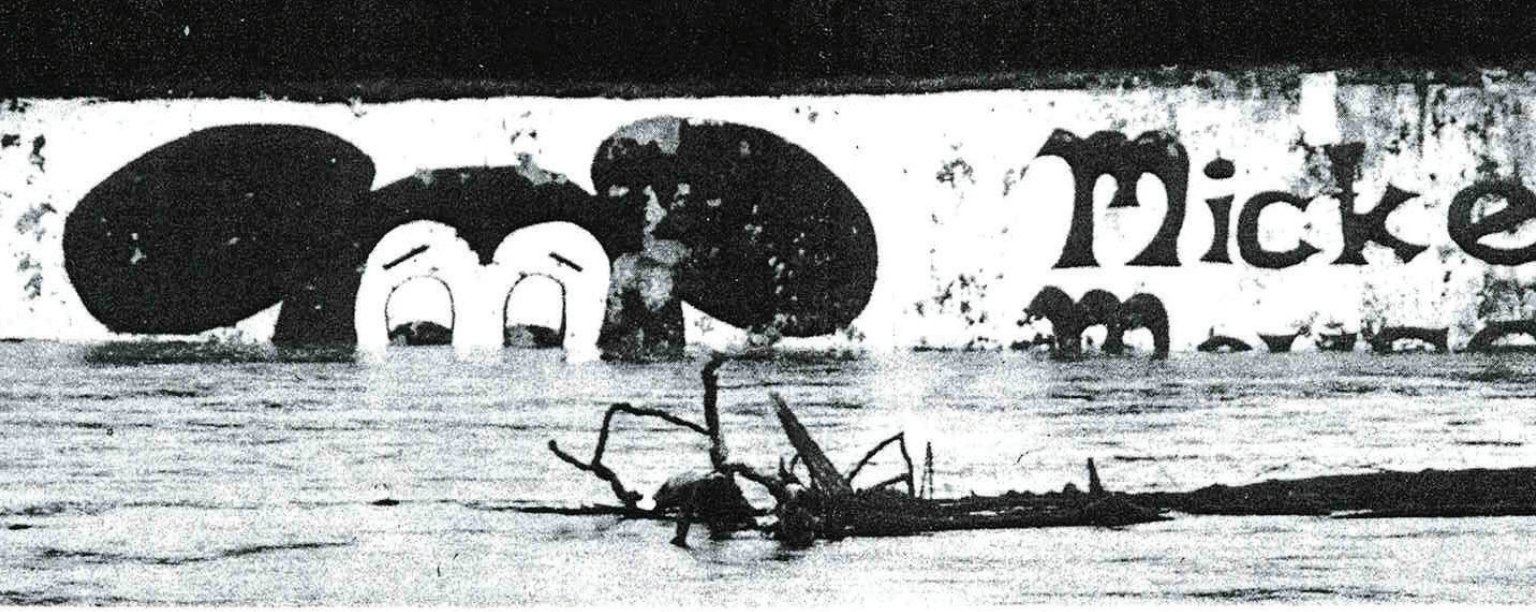


Puyallup River's Mickey Mouse is up to his eyeballs in flood water December 1975





Riverside residents must wade a while yet

By MARLOWE CHURCHILL
TNT Staff Writer

A number of Riverside-area residents still face another three or four days of hip-deep water around their homes until flood waters recede into the nearby Puyallup River.

A two-square-mile area, involving about 50 homes around 50th Avenue East, was inundated Wednesday by swollen creek water backed up from the Puyallup River.

Riverside Fire District Chief Fred Miller said the area could be called a "small disaster." About 24 families having been forced out of their homes so far.

MILLER SAID hundreds of volunteers from the Washington Army National Guard, Red Cross and area colleges were on standby through the night.

However, flooding waters began to stabilize about 10 p.m. Up until water was [illegible] inch

stranded cars and were forced to wade to higher ground.

For those who wished to remain in their homes, Miller and his fire fighters delivered fresh drinking water and firewood.

AT ONE POINT Wednesday night, high water near Satiacum's Smoke Shop threatened KTAC Radio's transmitter, with fire officials standing by in case of a power failure.

"It's just like pouring water into a pan," Miller said. The runoff from nearby hills exceeded the capability of flood gates to empty the water into the Puyallup River. The river will have to lower another six feet for the flood gates to reopen and empty the water standing in the area, he said.

Miller said he was aware of only one area resident who has flood insurance. "The rest will have to take it on the chin," he added.

Evacuated residents have been offered temporary quarters at Riverside Elementary School, the Summit Community Hall and the National Guard Armory in Puyallup, but Miller said most are staying with relatives.

"MY BIG WORRY now is that somebody is going to get electrocuted," the chief said. "Anything can happen."

Pierce County sheriff's deputies were patrolling the area to prevent looting from the flooded homes.

"I've got water all inside my home," Ron Angeline said. "I've already moved the wife and kids out and I'm just trying to save what I can."

He said most area residents were concerned about their vehicles, moving as many as possible to higher ground.

"I've never seen it so bad," he said. "We're all hoping for a minus tide (on the Puyallup River) so the water will go down."

Most residents have taken the setback pretty well, he added. "Anybody want any lakefront property?" he asked.

2019 Annual Report

PIERCE COUNTY
FLOOD CONTROL ZONE DISTRICT

FCZD Projects

Creating a flood resilient Pierce County is the focus of the **Flood Control Zone District (FCZD)**. The FCZD Board focuses on funding projects identified as top priorities for the community. To be considered in the district's capital budget, projects must be included within the district's **Comprehensive Plan of Development (CPOD)** and have received an initial project ranking number. When the CPOD was created in 2013, preliminary prioritization of capital projects was carried out by scoring the projects based on eight criteria.

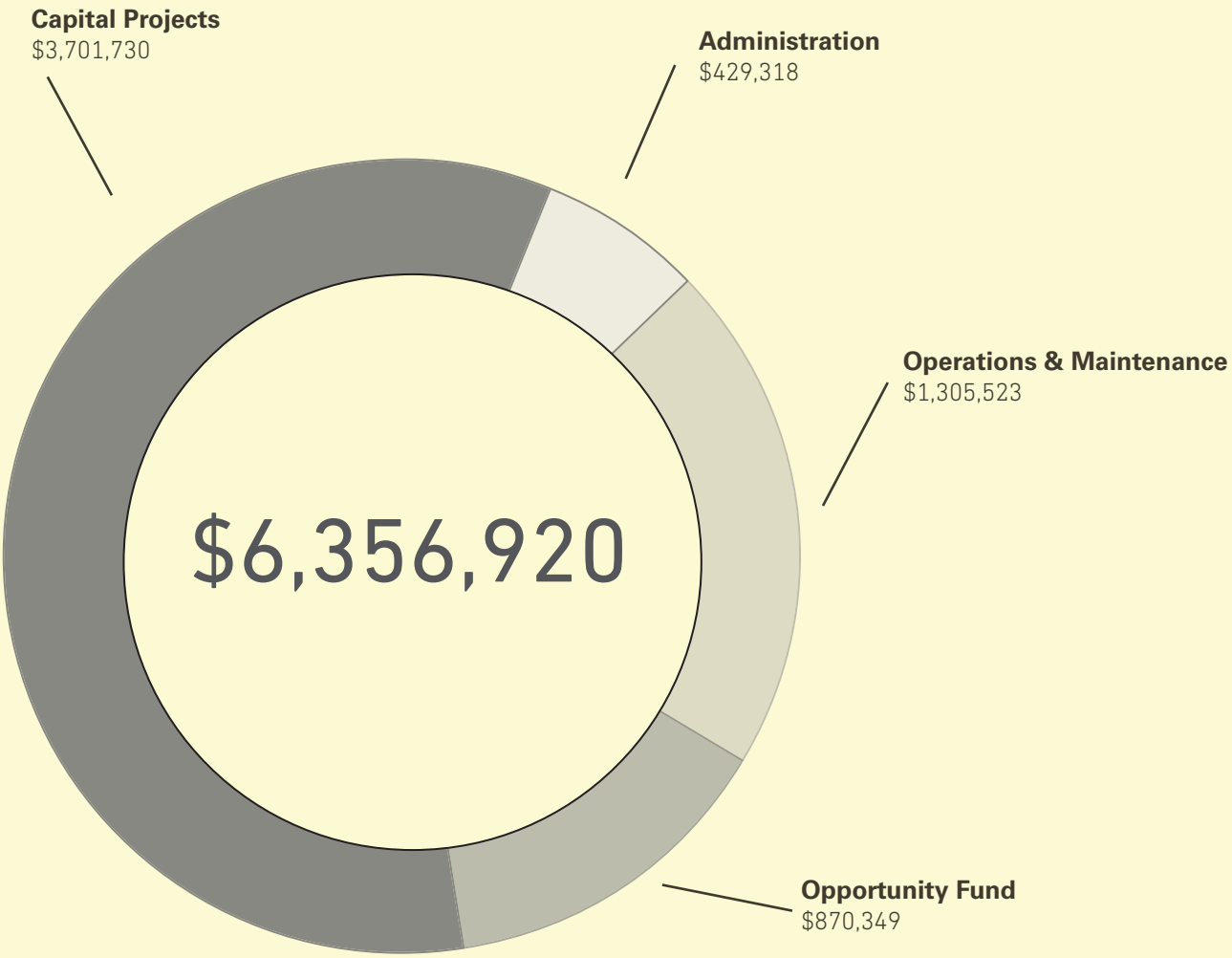
Existing land use of affected area (consequences)	Spatial area of impact (consequences & severity)	Project effectiveness	Multiple project benefits
Severity of potential flood or channel migration impact	Frequency of flood or channel migration occurrence	Benefit-cost analysis of project	Partnerships & opportunity

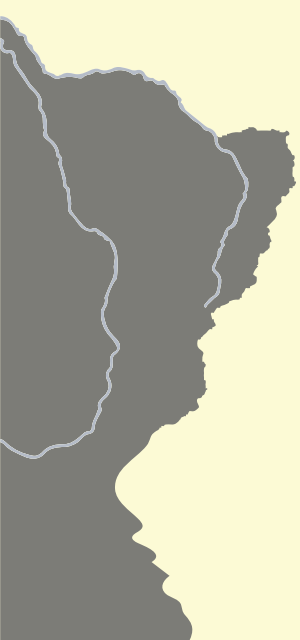


Alward Rd. property acquisition after cleanup.

Cover: Tacoma News Tribune article 1975

2019 Budget





Strategic & Emergent Needs Fund

The Board of Supervisors created a Strategic and Emergent Needs Fund in 2017. The amount of funding varies from year to year. Projects are considered on a case by case basis. In past years the fund was used to accelerate projects. The fund can also be used to fund unexpected project opportunities or community flood response costs.

Project Prog

Acquiring flood prone properties is a stand-alone risk reduction strategy. Property acquisitions also support existing or proposed capital projects that enable the creation of flood risk reduction projects such as setback levees and habitat restorations.

Neadham Road Acquisition

This is a multi-year project that reduces the potential for flood loss along the Puyallup River by acquiring homes in a flood prone neighborhood. Once all the homes have been acquired, the existing levee can be abandoned, reducing long term maintenance costs.

In 2019, two structures on Neadham Road were acquired and demolished. Pierce County is in the process of assessing three additional parcels for acquisition and the county took steps to complete a land swap. A field visit with participants from various permitting agencies and tribes took place and a conceptual design plan for the area was presented to stakeholders, permitting agencies, and tribes for comment.

2014 — 2019

Alward Road Acquisition

This project is part of a larger effort to reduce flood risk and improve floodplain habitat on the Carbon River. Once completed, the project will create an additional 150-acres of floodplain and will provide critical habitat for Chinook, Steelhead, and other salmonids.

This project involves acquiring all 81 properties along the north side of Alward Road between River Miles 6.4 and 8.4. In 2019, four properties were acquired bringing the total of acquired properties in this area to 61. Once the county completes acquisitions, they will remove all existing structures in the floodplain, construct a setback levee, and remove the existing levee that constrains the main-stem river.

In 2019, Pierce County Surface Water Management began an alternatives analysis to determine the most cost-effective project configuration in light of changes in property ownership, rising construction costs, and changing river conditions. Key issues that need to be considered are construction costs, long term maintenance, and providing access to an uphill neighborhood that relies on 177th Street East, Alward Road, for access. The county will compare the original project proposal from the 2013 Pierce County Rivers Flood Hazard Management Plan against other alternatives to find the best solution. Any new proposal would be included in the 2023 Flood Hazard Management Plan.

2014 — 2019

ress Report

PROPERTY ACQUISITION

Lower Puyallup Clear Creek Acquisition

The primary objective for the Lower Puyallup Clear Creek Acquisition and Levee Project is to minimize the impact of flooding related to the back water created by the confluence of Clear Creek and the Puyallup River during flood events. The project will relieve flooding within the Riverside area of Pierce County during high flows on the Puyallup River. This will prevent the Puyallup River and Clear Creek from flooding lowlands behind the levee. Approximately 400 acres of farmland, commercial and residential properties are impacted. The project will reconnect between 250 and 590 acres of floodplain. It will allow the floodplain to react more naturally with Clear Creek and the Puyallup River.

This project is expected to take at least 10 years to complete. The first phase will focus on property acquisitions from willing sellers in the area. Once property acquisitions are completed, a new levee system to protect infrastructure outside of the property purchase area will be constructed.

2014 — 2019

Orville Road Phase 2B Acquisition

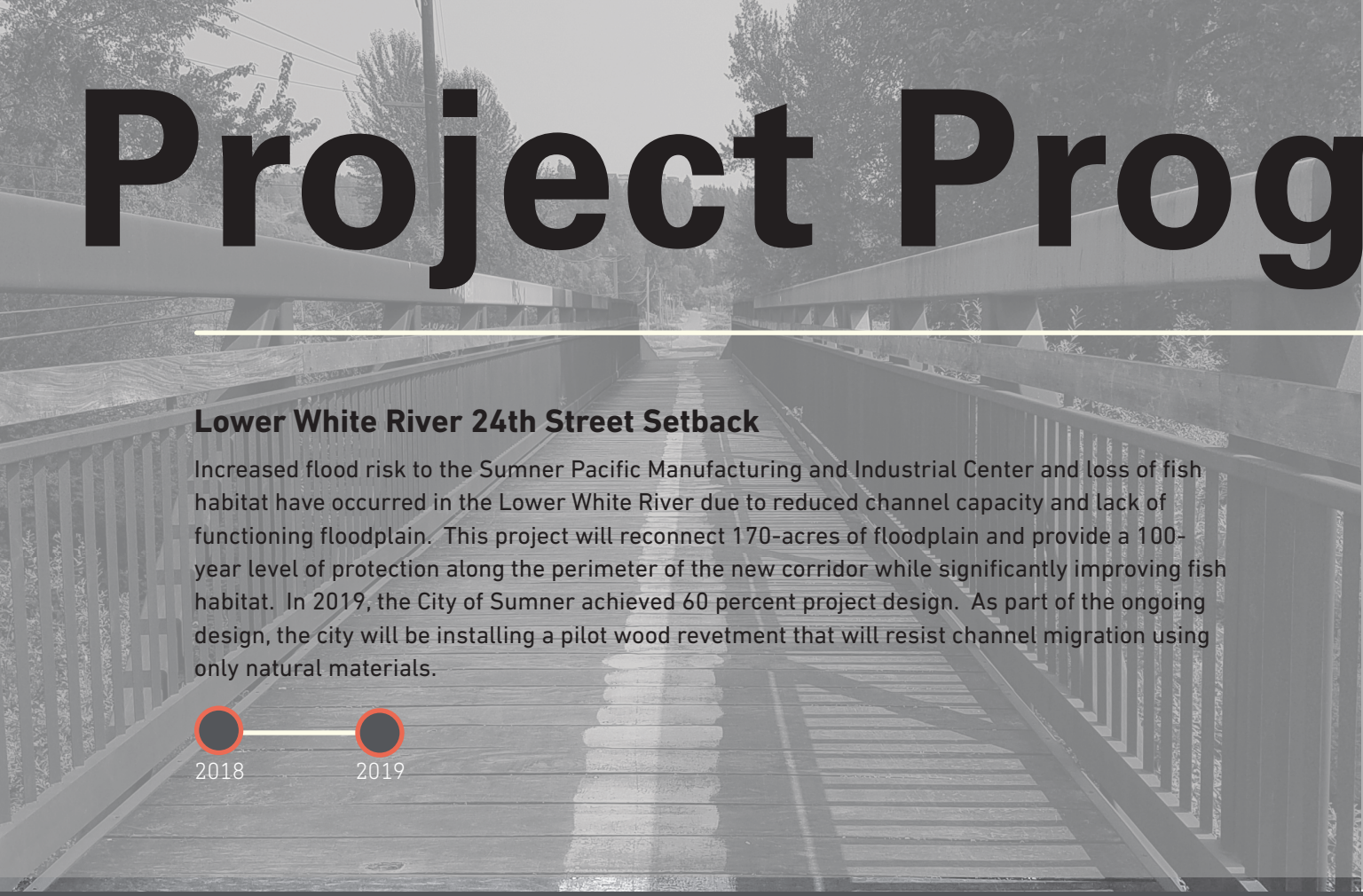
The Orville Road Setback Levee Project will eventually protect two miles of Orville Road between Electron Road and 249th Street East near Orting. The existing levee and revetment along Orville Road has been damaged in multiple locations because the Puyallup River channel is migrating toward Orville Road. In 2019, the final two properties needed to complete this project were acquired. These properties bookend the project, allowing connection of already completed work with the Puyallup River at the upstream and downstream end of the project.

2014 — 2019

Mid Puyallup 128th Street Comprehensive Feasibility Study

Over the next two years, this comprehensive feasibility study will look at flooding problems along the Puyallup River and its floodplain, upstream and downstream of the 128th Street East Bridge. It will evaluate and prioritize several alternatives to reduce flooding impacts, identify aquatic habitat improvement opportunities as well as estimate project costs and funding strategies. In 2019, project initiation documents were completed. Preliminary outreach was conducted to better understand stakeholders' values and concerns within the study area. Outreach will continue into 2020.

2019



Project Prog

Lower White River 24th Street Setback

Increased flood risk to the Sumner Pacific Manufacturing and Industrial Center and loss of fish habitat have occurred in the Lower White River due to reduced channel capacity and lack of functioning floodplain. This project will reconnect 170-acres of floodplain and provide a 100-year level of protection along the perimeter of the new corridor while significantly improving fish habitat. In 2019, the City of Sumner achieved 60 percent project design. As part of the ongoing design, the city will be installing a pilot wood revetment that will resist channel migration using only natural materials.

2018 — 2019

Calistoga/Ken Wolfe Levee

The City of Orting has been working to finalize mitigation plans for the Calistoga/Ken Wolfe Levee to submit to the US Army Corps and the Department of Ecology. The city continues to monitor and manage the mitigation areas around the levee and is working closely with the county on the nearby Jones Setback Levee project which will help achieve levee certification by FEMA for flood insurance benefits.

2014 — 2019

Puget Sound Shoreline Project

In 2019, the Pierce Conservation District (PCD) secured National Estuary Program & Estuary and Salmon Restoration Program funds to establish a Shore Friendly Pierce program, with a focus in the Key Peninsula and Gig Harbor areas. Pierce Conservation District worked with Peninsula Metropolitan Parks to identify the DeMolay Sand Spit Nature Preserve as a potential bulkhead removal demonstration site. The removal would provide opportunities for public access and restore the nearshore. Funds will be used to complete the feasibility assessment and project design for DeMolay. Flood District funds will be used in the construction phase.

2019

ress Report

ENGINEERING & STUDIES

Habitat & Flood Capacity Creation Project*

Pierce County worked for almost 10 years to find a feasible path to obtain permits and remove sediment from a river. The county concluded there wasn't path forward and the project was rendered inactive. A final report is available online at https://www.co.pierce.wa.us/HFCC.

Some key lessons are:

- Sediment management is a technically feasible, short-term management strategy given the right advocates and enough time and funding to complete
- Continued, regular consultation with tribes, stakeholders, the public, elected officials and agencies is vital
- Sediment management strategies may be most appropriate to implement in conjunction with other flood reduction projects

2014 — 2019

Orville Road Revetment - Phase 2

This project is in the Upper Puyallup River Watershed and will dismantle 1,500 linear feet of existing levee, install 4,200 feet of setback revetment, and place 40 in-stream Engineered Logjams (ELJs). The existing levee hinders habitat-forming processes and exacerbates local flooding by restricting flow from returning to the main channel. The proposed ELJs are designed to split and deflect flow to protect Orville Road East in a way that significantly reduces flood risk while simultaneously enhancing juvenile salmon habitat. This will also eliminate the need for the continued re-establishment of aging levees that no longer sufficiently protect Orville Road East. This project will result in 70 acres of reconnected historic floodplain and the restoration of approximately 1.5 miles of shoreline.

This project will be constructed in **4 phases**:

- **Phase 2A** – Completed in 2018, installed approximately 1,500 linear feet of setback revetment
- **Phase 2B** – Completed in 2019, installed approximately 1,500 linear feet of setback revetment
- **Phase 2C** – Scheduled for completion in 2020, will install approximately 1,200 linear feet of setback revetment and approximately 20 in-stream log jams
- **Phase 2D** – Scheduled for completion in 2021, will install the remaining in-stream log jams and remove approximately 1,500 linear feet of existing levee

2014 — 2019

This project was the Sediment Management as a Risk Reduction Tool, 2015; and the Habitat and Flood Capacity Creation Project, 2016

Opportunity Fund

Cities, towns, and unincorporated Pierce County are eligible to apply for Opportunity Fund dollars from the District for use toward flood control and storm water projects. Jurisdictions receive ten percent of the revenue generated within their jurisdiction by the Flood District's property tax levy.

2017 Projects

The City of Edgewood Jovita Boulevard Box Culvert Maintenance Project. This project removed 20 cubic yards of sediment and outwash material which allowed for minor culvert repairs.

2018 Projects

The City of University Place Chambers Creek Dam Acquisitions and Feasibility Planning Project. This project involves the development of a feasibility study and conceptual design to remove the Chambers Creek Dam.

The City of Dupont Street Tree and Sidewalk Program. This two-part project involves repairing and/or replacing damaged sidewalks caused by street trees as well as pruning and replanting trees that interfere with infrastructure. Street trees can contribute significantly to green stormwater management by absorbing rainfall, transpiring water, and controlling runoff.

The City of Lakewood Waughop Lake Algae Bloom Control Project. This project was identified in the City of Lakewood's 2017 Waughop Lake Management Plan.

2019 Projects

The City of Fife State Route 99 Stormwater and Pedestrian Improvement Project. This project, located between 54th Avenue East and 65th Avenue East, includes a new left turn lane, stormwater collection, treatment systems, and water system improvements.

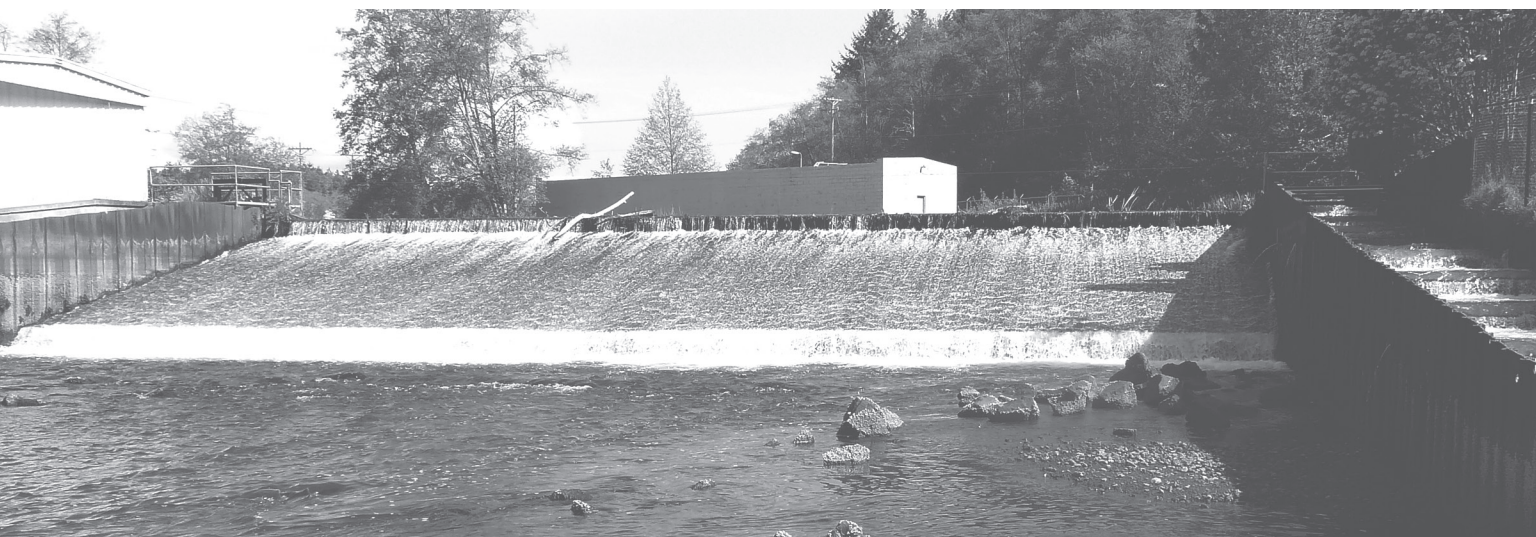
The Town of Steilacoom Vactor Truck Acquisition. The vactor truck will assist crews with maintaining the town's storm system.

The City of Tacoma Hosmer Stormwater Holding Basin Project. This project consists of removing unwanted sediment and vegetation, grading, and stabilizing all disturbed areas within the footprint of the existing holding basin.

Pierce County Technical Assistance to the Cities

Pierce County Surface Water Management is offering technical assistance to interested jurisdictions to discuss project ideas, eligibility, and how to leverage other grant opportunities to maximize the Opportunity Funds available to your jurisdiction. If you are interested in scheduling a meeting, please contact

Brynne' Walker at
(253) 798–4671 or
brynne.walker@piercecountywa.gov



Maintenance & Operations



High Cedars Levee | Puyallup River | Mile 25.4 This project involved repairing 202 linear feet of bank erosion below Brooks Road, where the river bends and flows under Orville Bridge.



High Cedars Levee | Puyallup River | Mile 17.6 This project involved repairing 400 linear feet of damaged levee that helps protect the McMillin Foothills Trailhead and Bridge, repairing an over-steepened bank and missing toe and face rock.

Pierce County operates and maintains over 69 miles of levees and revetments along four major rivers: Puyallup, White, Carbon, and Nisqually. The Pierce County Flood Control Zone District invests 15 percent of its annual budget in the maintenance and operation of Pierce County's flood risk reduction facilities. In 2019, approximately $1.3 million was provided to Pierce County to repair and improve levees and revetments. Work included three repair projects, rehabilitation, vegetation control, and access maintenance at a total cost of more than $1.6 million. The county repaired over 1,000 linear feet of levees and revetments.



High Cedars Levee | Puyallup River | Mile 18.6 This project involved three smaller repairs totaling 466 linear feet located at the High Cedars Golf Course, repairing an over-steepened bank and missing toe and face rock.



Who We Are & What We Do

The Pierce County Flood Control Zone District (FCZD) is a special purpose district, created by the Pierce County Council in 2012. The district is governed by a Board of Supervisors and an Executive Committee. The Board of Supervisors meets quarterly on the second Wednesday of January, April, July, and October and the Executive Committee meets the third Wednesday of each month. They authorize plans, budgets, project funding, and program and policy guidance. All meetings are open to the public.

Members of the Pierce County Council serve as the Board of Supervisors for the district. In 2019 they included: **Derek Young**—Chair, **Dave Morell**—Vice Chair, **Pam Roach**—Third Member of Executive Committee, **Connie Ladenburg**, **Jim McCune**, **Doug Richardson**, and **Marty Campbell**.

Advisory Committee

The Pierce County Council also created the Pierce County Flood Control Zone District Advisory Committee to make recommendations to the Board on capital projects. Their meeting dates are posted on the Flood Control Zone District website: www.piercefloodcontrol.org. Their meetings are also open to the public.

2019 Advisory Committee Members

Ryan Mello—Chair
Councilmember, City of Tacoma

Mike Dahlem—Vice Chair
Public Works Director, City of Sumner

Gary Brackett
Business Representative

Bruce Dammeier
County Executive, Pierce County

John Palmer
Mayor, City of Puyallup

Chuck West
Battalion Chief, Key Peninsula Fire Department

Greg Reed
Public Works Director, City of Orting

Russ Ladley
Natural Resources Director, Puyallup Tribe of Indians

Clare Petrich
Commissioner, Port of Tacoma

Kim Roscoe
Mayor, City of Fife

Several Advisory Committee members are rotating off the Committee and we would like to thank them for their volunteer service. Each has provided great leadership and has helped to make the District successful in providing flood risk reduction funding. Leaving the Advisory Committee are Ryan Mello, Chair, Gary Brackett, and Clare Petrich.

We would also like to thank those who have served as alternates on the Advisory Committee including: Doug Beagle, City of Sumner; Chris Cooley, County Executive's Office; Hans Hunger, City of Puyallup; Jason Jordan, Port of Tacoma; Char Naylor, Puyallup Tribe, and Lew Wolfrom, Councilmember, City of Fife.

Advisory Committee Field Trip



The City of Sumner hosted the June 14, Pierce County Flood Control Zone District Advisory Committee meeting. Committee members toured areas at risk of flooding from the White River and capital project sites including the 24th Street Setback Levee area and the Sumner Point Bar. Flood District Board of Supervisor and Executive Committee member, Pam Roach, joined the tour. The Committee also had the chance to learn how drone technology is being used by Pierce County Planning and Public Works to help inspect levees.

FLOOD

CONTINUED FROM A12

we relied on," Rimkus said. "None of us would have put in money if we couldn't keep" our houses, she said.

Woodcock, the department spokeswoman, said it's unlikely that staff gave rebuilding advice to flood victims.

A BIG MISTAKE

The River Park Estates mobile home park, overlooking the Puyallup River next to Rimkus' home, resembles a ghost town these days.

Before the November flood, residents filled 43 units. Today, every one stands empty, except eight built on higher ground.

Don Tucker, River Park's owner since 1991, said the chances of reviving the mobile home park are grim. Ladenburg's Jan. 29 letter caused residents to give up hope of rebuilding, according to Tucker and two tenants interviewed by The News Tribune.

The park suffered similar damages when it was last slammed by a major flood in 1996, Tucker said. Afterward, he tried to build a levee without proper county permits. He is being sued by his tenants, who claim the unfinished earthen berm made the November flooding worse.

Back in 1996, Tucker said, many tenants fixed up their homes and stayed. He bought the units from those who left, and he and a contractor fixed them and welcomed new tenants.

"We could have done the same this time," Tucker said.

The real question is: Why were they allowed to rebuild last time?

Ladenburg said it was a mistake. River Park is located in the floodway, where the county says property shouldn't be rebuilt if it suffers 40 percent or more damage.

That rule hasn't always been rigorously enforced.

"I know that some time ago the county didn't have enough inspectors," said Ladenburg, who was the county prosecutor, not the executive, in 1996. "We had very little enforcement a decade ago, and a lot of building activity went on without the county knowing.

"People just went ahead and did it," he said.

A WAY OF LIFE

Downstream on the Puyallup River, less than a mile from River Park, lies another flood-soaked mobile home park called Rainier Manor.

The residents there will likely repeat the cycle of evacuating, rebuilding and resettling when the next big one hits. They did so after the 1996 flood, and they did it again six months ago.

That's the way of life at Rainier Manor, which is located in the federally designated flood plain but outside the more hazardous flo

If re bject to Pierce C hey would

