
**King County Flood Control District
Scope of Services 2016 Annual Report and 2017
First Quarter Performance Report
Per Flood Control District Resolution 2008-17**

April 2017



King County

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King County Flood Control District
Scope of Services 2016 Annual Report and 2017 First Quarter
Performance Report (January 2016 – March 2017)

I. Purpose

This report provides the King County Flood Control District's (District) Board of Supervisors with the status of work completed by the Water and Land Resources (WLR) Division of the Department of Natural Resources and Parks as Service Provider to the District.

II. Scope of Services

The District's work program is comprised of two major components:

1. A capital improvement program to rehabilitate flood protection facilities and other projects to protect structures at high risk of flooding; and
2. Operational and programmatic activities, such as identifying flood risks, communicating those risks to the public, preparing for and responding to flood events, maintaining over 500 facilities in King County's flood protection system, and inter-governmental coordination such as the Basin Technical Committees (BTCs).

2017 marks the 10th year of the District's operations. The District was established in 2007 in the aftermath of catastrophic flooding in New Orleans following Hurricane Katrina and a federally declared flood disaster in 2006 that created significant damages to critical public infrastructure and homes in King County.

Since operations began in 2008, the District has made significant strides to protect people, property, and the region's economy from flood damages and disruption; highlights include:

Actions to reduce risks to people, property, and the region's economy

Completion of 77 public safety projects:

1. Over \$40 million for levee improvements in the City of Kent to protect a regional economic center, critical public infrastructure, and residential areas while supporting the Kent's Federal Emergency Management Agency (FEMA) flood insurance mapping levee accreditation efforts. District investments leveraged an additional \$25 million from the U.S. Army Corps of Engineers (Corps).
2. \$16.8 million for the Reddington Levee Setback in Auburn to protect over 200 homes and 375 commercial businesses valued at over \$680 million.
3. \$20.8 million for the Countyline Levee Setback in the City of Pacific to protect over 200 homes and property valued at over \$52 million.
4. \$8.6 million for emergency response to the reduced storage capacity of the Corps' Howard Hanson Dam, which increased the risk of flooding to the lower Green River valley. The response included rapid installation of temporary levees along the entire lower Green River, and removal of these temporary levees once the Corps completed repairs.

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5. Over \$13 million to the City of Renton Gravel Removal Project to increase flood conveyance capacity along the lower 1.25 miles of the Cedar River. The project protects densely developed downtown Renton, including Boeing's 737 assembly plant, PACCAR's Kenworth Truck manufacturing facility, Renton Municipal Airport, residential areas and commercial properties. The project also ensures 100-year flood conveyance capacity for the City of Renton so that adjacent densely developed land is not considered a FEMA flood hazard area.
 6. Over \$17 million for critical repairs to 62 damaged levees and revetments following floods in 2006, 2009, 2011, and 2015.
 7. Permanent flood protection through acquisition of over 440 acres and relocation or demolition of 165 at-risk structures throughout King County.
 8. Increased resiliency to flooding through elevation of 56 homes in flood-prone areas, and technical support for construction of 30 farm pads in the Lower Snoqualmie valley.
 9. \$43.6 million allocated to the 40 local governments of King County for projects that solve local drainage problems, improve water quality, and implement regional watershed management priorities.
 10. \$11.6 million allocated through a competitive grant program to non-profits, homeowner's associations, and local governments to solve local drainage and water quality problems throughout King County.
 11. \$23.1 million for regional habitat protection and restoration priorities, as recommended by regional watershed forums in the Snoqualmie, Cedar-Sammamish, Green, and White River watersheds.
 12. Secured federal, state, and local grants and cost-share partnerships valued at over \$57 million to offset District expenditures.

Actions to increase understanding of flood hazards and vulnerabilities

1. Updated flood hazard or channel migration hazard maps for the Green, Cedar, White, Sammamish, Tolt, and South Fork Skykomish rivers, as well as coastal flood hazards along the urban coastline and Vashon-Maury Island.
2. In response to the Oso landslide tragedy, developed landslide hazard maps for the major river corridors of King County.

Actions to increase flood awareness and preparedness

1. King County's Flood Warning Center has opened 45 times in response to rising river conditions, providing 1,400 hours of 24/7 information to first responders and the general public about river conditions and forecasts.
2. Development of an automated real-time flood alert system for King County's major river systems, providing 24/7 notifications to over 5,000 subscribers as river conditions change.
3. Expansion of the annual flood awareness brochure from one version sent to approximately 5,000 landowners, the District now distributes brochures to 17,000 homes with a general version as well as versions tailored to Council districts.

Finally, WLR Division's management of the District's \$348 million in expenditures, including financial management, contract administration, and grant administration services are the basis for District's clean audit record.

Capital Improvement Program Implementation

Projects in the capital program reduce risks to public health, safety, and critical public infrastructure from flooding, erosion, and rapid channel migration. A detailed description of flood hazard management conditions and objectives for each major river system is available in the adopted 2006 King County Flood Hazard Management Plan, which serves as the District's Comprehensive Plan, as well as the 2013 King County Flood Hazard Management Plan Update and Progress Report adopted by King County. The capital program fulfills one or more of the following flood hazard management objectives:

- Repair and improve flood protection facilities throughout major commercial, industrial, and residential areas;
- Reduce risks to people by removing flood, erosion, and landslide-prone residential structures;
- Improve flood water conveyance and capacity; and
- Provide safe access to homes and businesses by protecting key transportation routes.

The District's 2017 revised capital program includes \$135 million in appropriations (including \$75 million carryover from 2016 pending formal adoption by the District). Of this amount, approximately \$12.5 million is backed by external grant revenue. In addition, \$37.4 million is allocated to three grant programs that award funds to non-profits, tribal nations, state agencies, and local governments: the Opportunity Fund, the Cooperative Watershed Management Grants, and the Flood Reduction Grants. Approximately \$22.9 million is programmed for projects managed by other agencies, such as the cities of Kent, Seattle, Bellevue, and Renton, and the Corps.

Highlights of capital program implementation for the report period include:

Corridor Planning – Corridor planning was initiated in areas where flood and channel migration risk is high and significant capital improvements are needed to reduce risk to public safety and infrastructure. Corridor planning supports District decisions regarding project priority and sequencing for capital investments.

Tolt River: A draft Capital Investment Strategy for the Tolt River Corridor Planning area that proposes projects to reduce risk over the next six to 10 years was presented to the District in fall 2016. Public outreach to share the strategy was completed in late 2016 and early 2017. Feedback from these efforts was compiled and transmitted to the District in March 2017 and is being used to revise project proposals to the District. The final draft Tolt River Capital Investment Strategy will be transmitted to the District before the end of second quarter 2017.

South Fork Snoqualmie River: A draft Capital Investment Strategy that proposes projects to reduce risk over the next six to 10 years was presented to the community in winter 2016 and to the District in summer 2016. Community feedback was compiled and transmitted to the District in February 2017 and is being used to revise project proposals to the District. The final draft South Fork Capital Investment Strategy will be transmitted to the District before third quarter 2017.

Middle Fork Snoqualmie River: Planning efforts are on hold.

Cedar River: Technical work in 2016 included risk analyses and development of project alternatives. The draft Capital Investment Strategy was presented to the District in fall 2016 and suggests how the 20 projects identified might be sequenced and funded over the next six to 10 years. Stakeholder outreach was completed in January 2017. The final draft Capital Investment Strategy will be transmitted to the Flood Control District before the end of second quarter 2017.

Green River Interim System-Wide Improvement Framework (SWIF): In February 2016, the District Board of Supervisors approved submittal of the Interim SWIF to the Corps. As part of the resolution adopting the Interim SWIF, the District also authorized a lower Green River corridor planning process, including formation of an advisory council.

Cedar River Gravel Removal Project – This project is a partnership between the District and the City of Renton. During the reporting period, Renton and its consultant finalized the negotiation of mitigation requirements and obtained all permit applications. The consultant team completed the final design for both the Cedar River Maintenance Dredge Project and the Elliot Spawning Channel Mitigation Project. The contractor began the maintenance dredge project in July. Dredging was completed ahead of schedule in mid-August 2016.

Construction activities for the spawning channel mitigation project were initiated in July 2016, and the project was considered substantially complete in October 2016.

Willowmoor Floodplain Reconnection Project –The City of Redmond will execute the preliminary project design as the primary service delivery provider to the District. The project 30 percent design is now anticipated for completion by the City of Redmond in December 2018.

I-90 Flood Risk Reduction Project, Upper Snoqualmie – This project is intended to reduce flood risks to a regional transportation corridor as well as commercial and residential properties in and around North Bend. Alternatives under consideration include four different levee setback alignments and one dredging alternative. All alternatives considered protection of the freeway during a 100-year flood event on the South Fork Snoqualmie River. Alternatives were shared with the District, Maloney Grove Neighborhood, and the community in fall and winter 2016 meetings. The Alternatives Analysis Report was finalized in March 2017.

Sinnema Quale Revetment, Lower Snoqualmie – This flood protection facility, located between Carnation and Duvall, protects the Snoqualmie Valley Trail, State Route 203, and two regional fiber optic lines. The project included a 750-foot steel shoring wall and 12 engineered log structures to stabilize the river embankment and provide enhanced aquatic habitat. Construction was completed in September 2016. Site planting was completed in February 2017.

Tolt Pipeline Protection, Lower Snoqualmie – This project will reconstruct approximately 1,000 linear feet of the Winkelman revetment where ongoing lateral channel migration threatens to undermine the City of Seattle's Tolt River water supply pipeline. The District authorized purchase of the parcel containing the project footprint in order to resolve challenges with the landowner. Purchase of the parcel closed in February 2017; the parcel will be surplus

following project construction. The project is in the final design phase, and construction has been rescheduled from 2017 to 2018 due to an extended federal permitting process.

SE 19th Way Road Protection Revetment Repair, Lower Snoqualmie – This project will repair ongoing erosion of the SE 19th Way revetment and protect access to high value agricultural operations. Outreach was conducted in March 2017 with property owners in the project area to discuss the alternative proposed. The project is currently in the design phase and has a target construction start date of late 2017.

Lower Russell Road Levee Setback Project – This project will set back a levee to better protect residential and commercial development while also improving riparian and aquatic habitat along the Green River. The project will integrate existing road, trail and park amenities and enhance existing recreational opportunities. Three significant parcels, totaling more than six acres, were acquired for the project. King County staff assisted the District in reaching agreement on a Memorandum of Understanding with the City of Kent and negotiating an Interlocal Agreement (ILA) for a land swap involving the KOA campground. County staff met with city staff numerous times to discuss design issues of concern. Significant design refinements to habitat areas from the 30 percent design occurred, and design on other project elements have advanced. Project construction start is currently anticipated for 2019.

City of Kent Partnership Projects – King County staff reviewed reimbursement requests, property transfers, engineering designs, and construction of City of Kent projects which are funded by the District through interlocal agreements (ILAs). These included the Briscoe-Desimone Levee Improvement Project and the Upper Russell Secondary Levee Project.

Teufel Nursery – This site was acquired in 2011 as a future mitigation site following tree removal required by the Corps on the Green River in 2008–2009. Design of an 85-piece, large wood mitigation structure along the low-flow margins of the Green River took place in 2016. Design work included alternatives analysis, preliminary design, and final 90 percent design. Permits were completed and applied for in the third quarter of 2016 and first quarter of 2017. Additional mitigation requirements include planting of 1,043 native trees at the site. Public outreach for the project will be initiated in the second quarter of 2017, and a planting plan will be developed in the third quarter. Tree planting, soil remediation, and construction of the large wood structure are anticipated in 2018.

Green River Flood Damage Repairs –The Dykstra Levee repair project was substantially completed in 2016.

Lower Coal Creek Flood Hazard Feasibility Study, City of Bellevue – Bellevue was reimbursed for a project which will increase the storage capacity of the regional detention pond while maintaining fish passage and increasing conveyance capacity at five box culvert crossings. Pre-design culvert alternatives analysis is complete. The process to secure necessary construction and permanent easements is underway. Work has started on the final design of the first culvert replacement. Planning and design will continue through 2017–2018 with construction of culvert and bridge replacements scheduled for 2017 and 2018.

Black River Pump Station, Green River –Sediment removal to improve pump station functioning was completed ahead of schedule in 2016; building and pump upgrade projects started in 2017.

Countyline Levee Setback, White River – The project is midway through construction. Site work began in June 2016 with a focus on installing log structures, excavating and grading along the new levee alignment, and staging construction materials. The second year of construction is expected to start by May 2017 depending upon weather conditions. The Communications Plan will continue to be executed along with construction management and community relations services to support project implementation. The project is scheduled for substantial completion in October 2017, followed by the installation of 49,000 native plants over 17 acres during the fall and winter of 2017. The Countyline Project will provide significant flood risk benefits to the residents of the City of Pacific protecting 200 homes, assessed value of \$52 million, and will reconnect 121 acres of floodplain.

Right Bank Levee, White River – In February 2016, the District took prompt action by authorizing \$3 million of additional funding to address the residential flooding of the December 2015 event that impacted residential homes in White River Estates. The funding supported the acquisition of eight homes from willing sellers along the southerly edge of the King-Pierce County boundary line and the installation of additional flood protection barriers (HESCOs). Utilizing an expedited contracting process, a construction contractor was retained to remove the eight structures and install 1,000 lineal feet of HESCOs before the start of the flood season in November 2016. The newly installed barriers align with work by the City of Pacific to block and pump stormwater from Government Canal and also align with flood barriers installed by Pierce County on the south side of the Canal. Throughout the 2016-2017 flood season, weekly coordination occurred between flood management representatives from King County; the cities of Pacific, Auburn and Sumner; Pierce County and the Corps. In addition to this work, outreach to property owners at the northerly portion of the project site along 3rd Place SE resulted in a critical acquisition from a willing seller.

City of Pacific Park Opening and Closing – During the reporting period, HESCO barriers were inspected and maintained by King County crews to ensure structural integrity. The HESCO barrier closed the park area in fall 2016 in preparation for high river conditions expected during the 2016-2017 flood season. The HESCO barrier is scheduled to be re-opened in the park in April 2017.

Acquisition and Elevation of At-Risk Structures – Five at-risk homes were elevated in the Snoqualmie River basin during the reporting period; another 11 home elevations are underway.

Acquisitions for Levee or Revetment Projects – During the reporting period, 14 properties, totaling 60 acres, were acquired to support flood risk reduction projects on the Snoqualmie, Green, Cedar, and White rivers.

Sub-Regional Opportunity Fund – Payments of over \$4.3 million were made to 22 jurisdictions for projects intended to improve local drainage and water quality conditions. The largest single payment was to the Seattle Public Utilities with over \$632,000 for the City's Licton Springs Project.

Water Resource Inventory Area (WRIA) Funding – Over \$6.5 million was paid to 28 separate non-profit or governmental agencies working on habitat conservation priorities in the Cedar-Sammamish, Green-Duwamish, White, and Snoqualmie watersheds.

Flood Risk Reduction Grant – Over \$1.9 million was paid to 17 non-profit or governmental agencies to reduce flooding or the risk of flooding in their areas.

Operational and Programmatic Implementation

Flood Preparedness, Regional Flood Warning Center and Post Flood Recovery Program

The District's operational work program includes a comprehensive approach to preparing and educating citizens about potential flood events, coordinating emergency response and regional Flood Warning Center operations during flood events, and ensuring consistency across basins for post-flood recovery actions.

During the reporting period, the Flood Warning Center was opened for four flood events for a total of approximately 92 hours of operations and over 288 hours of staff time. This represents less flooding than typical compared to previous reports. The King County Flood Warning Center staff also participated in Cascadia Rising, a multi-agency earthquake and tsunami exercise in June 2016.

In January 2016, the District Executive Committee was briefed and presented with a Preliminary Flood Summary that focused on two large floods that occurred late in 2015. The District Executive Committee asked the WLR Division to provide a final report that outlined information regarding impacts, damages, response, and recommendations for potential actions. The 2015-2016 Flood Season Report was submitted to the District in April 2016. Below are some of the actions taken that were referenced in the report.

- Expansion of the Sandbag Distribution Program to four additional locations. The sites opened to the public in September 2016. Free sand and sandbags are available 24 hours a day, seven days a week at King County Road Services Division shop sites located in Renton, Black Diamond, Fall City, and Skykomish.
- Expansion of the King County Flood Warning System to include the South Fork Skykomish River. A four-phase warning system was developed in time for the 2016-2017 flood season. This system provides flood warnings to people who live, work, or travel through the town of Skykomish and the surrounding area.
- Acquisition of homes in White River Estates from willing sellers that allowed temporary flood barriers to be extended toward and along Government Canal, protecting neighboring properties from flooding. This emergency action was in response to notice from the Corps warning of continued loss of channel capacity in the lower White River that has increased the risk of flooding.

In 2016, flood response coordination meetings for internal staff and external partners included:

- An Interagency Flood Preparedness Meeting
- Flood Warning Staff Training
- King County Office of Emergency Management's Winter Weather Seminar
- Flood Warning Patrol Training
- Puget Sound Energy Safety Days
- A White River/Puyallup Basin Emergency Operation Center Response Exercise

At the invitation of the World Bank-Vietnam, a King County staff member traveled to Ho Chi Minh City, Vietnam, to participate in a workshop organized and funded by the World Bank to help inform investments in flood risk reduction and flood warning for Vietnam's largest city.

King County Flood Update Brochure – The annual “Be Flood Ready” brochure was mailed to 17,000 addresses in King County river floodplains between November 2016 and March 2017. The brochure was translated into 21 languages posted at <http://www.kingcounty.gov/floodservices>. The brochure features flood preparedness tools and resources, a spotlight on District projects, and inclusion of the King County river gage and flood stage map. That information remains ready and available during any flood event to share with King County's Community Communication Network. The network is a way to exchange information among Public Health – Seattle & King County (Public Health), community-based organizations, and community leaders in order to ensure essential emergency and emergency health-related information reaches vulnerable residents of King County.

Flood Hazard Studies, Mapping, and Technical Services Program

Landslide Mapping – New, updated mapping of landslide hazard areas along the river corridors of incorporated and unincorporated King County was finalized in fall 2016. This mapping was prepared using methods reviewed by the Technical Review Committee which includes geologic experts from King County, Washington State Department of Natural Resources, University of Washington, and private sector subject matter experts. The mapping of landslide hazards was coordinated with a mapping effort for all unincorporated county areas conducted by the Department of Environmental Review and Permitting. The new mapping was presented to county residents at workshops in late October and early November 2016. The mapping information and supporting technical memorandum are readily available to the public through new webpages and via the county's iMAP portal. The up-to-date detailed information on landslide hazard areas that intersect major river floodplains is being utilized to inform the development of capital flood risk reduction projects along the major river corridors. Using the mapping, an inventory of landslide data is being compiled. King County staff is providing technical assistance in response to public inquiries to explain the use and meaning of the new hazard mapping.

South Fork Skykomish River Channel Migration Zone (CMZ) Mapping – In late 2016, a draft study and mapping were prepared illustrating the channel migration hazard areas along the South Fork Skykomish River from the King-Snohomish county line to the confluence of the Foss and Tye rivers. This newly mapped hazard information will help inform the development of future capital projects along the river and in the floodplain. This information will be provided to the Town of Skykomish, and a public meeting will be schedule for spring 2017 to present the draft study and describe the new mapping to area residents.

Tolt River CMZ Mapping – In late 2016, draft study and mapping was prepared illustrating the channel migration hazard areas along six miles of the Tolt River. This newly mapped hazard information will help inform the development of future capital projects along the river and in the floodplain. This information will be provided to City of Carnation, and a public meeting will be schedule for spring 2017 to present the draft study and describe the new mapping to area residents.

Snoqualmie River Hydrologic and Hydraulic Study – Phase 1 of the Snoqualmie River Hydrologic and Hydraulic (H&H) Study was completed in January 2016. The study was done as an independent analysis of the impacts and benefits of two projects completed by other agencies: the Corps’ Snoqualmie River “205” channel widening project and Puget Sound Energy’s recent upgrades to its hydroelectric facilities above Snoqualmie Falls. The study was presented to the Snoqualmie Fish, Farm, and Flood Advisory Committee and at a public meeting in Carnation in March 2016. The second phase of the H&H study was completed in the first quarter of 2017 and provides information about flooding trends, natural patterns, and the U.S. Geological Survey river gages. A public meeting to share the results of the study is scheduled for April 2017.

Climate Change Analysis

2016 was the first year of a two-year partnership with the University of Washington to forecast the impacts of climate change scenarios on flooding magnitudes and frequencies on King County’s major rivers. Work completed during 2016 included executing a contract with the University of Washington, model development and calibration, and rescoping of the project following a 2017 budget reduction to remove the White and Cedar Rivers from the scope. The analysis now focuses on the Snoqualmie and Green Rivers. Model calibrations will be completed in the second quarter of 2017, climate change simulations will be modeled in the third quarter, and a report describing potential changes in flood magnitudes, frequencies, and durations will be provided in the fourth quarter of 2017.

Public Outreach, Flood Hazard Planning and Grants, and Repetitive Loss Mitigation

Significant outreach efforts during the reporting period include preparation for flood season, outreach about multiple construction projects, as well as outreach about floodplain planning, technical studies and maps, and other public engagement efforts. Public outreach activities during the report period supported the following projects and programs:

- Cedar River Corridor Plan (technical/stakeholder meetings July and November 2016)
- 2016-2017 Flood Outreach/Take Winter By Storm Campaign Preparation (October 2015-March 2016)
- 2015-2016 Winter Flood Response co-hosted with the City of Pacific and the Corps (February 2016)
- Black River Pump Station Improvements
Briscoe-Desimone Levee Improvement Project
Cedar River Annual Public Meeting (November 16, 2016)
- Cedar River Corridor Plan Stakeholder Advisory Committee meetings (October 2016)
- Countyline Levee Setback Project public meeting (May 2016) and media event (June 2016)
- Desimone Levee Repair Project
- Dykstra Levee Repair Project
- Elliott Bridge Reach Mitigation Project
- Farm Pad Program
- Flood Preparedness with the City of Pacific and the Corps (September 2016)
- I-90 Flood Risk Reduction Project (public meeting November 28, 2016)
- King County Flood Control District Flood Reduction Fund
- King County Flood Control District Sub-Regional Opportunity Fund

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- King County Rivers Facebook Page
 - Known Hazards in King County Rivers web page
 - Landslide Hazard Public Meetings (four meetings: October/November 2016)
 - Large Wood Annual Meeting (June 8, 2016)
 - Lower White River Countyline Reach Projects
 - Repetitive Loss Property and Repetitive Loss Area Annual Outreach (September 30, 2016)
 - Sinnema Quale Upper Revetment Analysis and Repair Project public outreach and media event (June 4, 2015) and media outreach (March 15, 2016)
 - Snoqualmie River Hydrologic and Hydraulic Study public outreach and community meetings
 - Phase 1: Presentation to Fish, Farm, and Flood Committee (March 2016)
 - Phase 1: Presentation and public meeting at Carnation Middle School (March 2016)
 - Phase 1: Public comment period for draft report (March/April 2016)
 - Phase 2: Public comment period on scope (March/April 2016)
 - Phase 2: Private residence high-water mark survey effort (April/May 2016)
 - South Fork Snoqualmie River Corridor Plan (neighborhood meeting November 2016; technical/stakeholder meetings January 2017)
 - South Fork Snoqualmie River Channel Migration Zone Study and Mapping Preparation
 - Tolt River Corridor Plan public meeting (November 2016); technical/stakeholder workshop (January 2017); neighborhood and forum meetings (November 2016-January 2017)
 - Teufel Mitigation, Flood Risk, and Habitat Restoration Project
 - Willowmoor Floodplain Restoration Project Stakeholder Advisory Committee (October 14)

Community Rating System Discount – Every three years, FEMA’s Community Rating System (CRS) verifies that King County’s floodplain management activities exceed the minimum National Flood Insurance Program’s requirements. King County’s last verification visit was in October 2014, resulting in a confirmation as a Class Two Community in June of 2016. The next verification visit will be in fall of 2018.

Leveraging External Resources through Grants and Partnerships – A decision is anticipated from FEMA by second quarter of 2017 about a grant application submitted to FEMA in 2012 to elevate two homes on the Lower Snoqualmie. During 2016 the District authorized King County to pursue two grants for the Lower Russell Levee Setback project: a Floodplains by Design grant requesting \$9.8 million, a Puget Sound Acquisition and Restoration (PSAR) Large Capital Projects grant for \$6.5 million.

Resource Management, Annual Maintenance, and Facility Assessment Program

This element of the District’s work program includes inspections and maintenance of approximately 500 flood protection facilities along 119 linear miles of riverbank, approximately 800 acres of land, and pump stations and related flood protection infrastructure.

County staff completed 411 inspections on 301 levees and revetments during the reporting period. Of these, 243 were routine inspections and 168 were post-flood inspections following the two large flood events that occurred at the end of 2015. Two cycles of animal burrow inspections were completed on the Lower Green River levee system. County staff also participated in 14 levee inspections along the Green and Cedar rivers that were led by staff from the Corps, Seattle District. In addition, 137 maintenance site inspections were completed on a total of 102 maintenance sites to determine work needed to control noxious weeds and maintain areas revegetated with native trees and shrubs.

In addition to completing one monitoring report on a facility repair project, a “Report on Capital Program Effectiveness Monitoring and Evaluation” was completed in July 2016.

During the report period, the maintenance program consisted of six primary focus areas:

1. General maintenance work, including irrigation, signage, hazard tree mitigation, debris removal, planting, mulching, and mowing on 89 sites.
2. Treatment of miscellaneous noxious and invasive weed species on 65 sites and treatment of 410 knotweed infestations.
3. Inspection and maintenance of river safety signage and monitoring of large wood conditions at nine potentially hazardous river locations and maintenance of river closure signs at 21 locations on the Cedar River.
4. Removal of 15 at-risk structures from flood prone properties acquired by the District, of which 13 were demolished and two were relocated. In addition, 15 water supply wells were decommissioned.
5. Reconstruction of 0.2 miles of levee crest on the Green River to address deficiencies identified by the Corps to maintain eligibility for flood damage repair funding under the Levee Inspection Program authorized under Public Law 84-99.
6. Completion of annual maintenance tasks to sustain flood conveyance and aquatic habitat in the Sammamish Transition Zone reach in Marymoor Park. Tasks included pruning vegetation in the navigation channel, removing willow from the downstream connection between the high flow and low flow channels, removing a beaver dam, and high-flow channel mowing.

Program Management and Supervision: Finance, Budget and General Administration

This category includes audits by the State of Washington and the District, as well as District billings, financial management and reporting, grant billings for external grants, and 251 reimbursement requests for the District’s three capital grant programs. Approximately 212 grant agreements and projects are currently being administered through these grant programs.

Staff provided support for the District’s mid-year budget reallocation in July 2016, which included budget and a draft work program authorizing the Lower Green Corridor Plan and Environmental Impact Statement. Staff also supported the District’s budget development process with the Advisory Committee and the Board’s budget deliberations, which resulted in funding

for the King County Sheriff’s Office cost-sharing purchase of a new vessel and paying for time spent in support of the District’s work program. The budget development process also included new capital projects to prevent King County roads from being damaged by flooding, as well as funding for King County to increase staff capacity to repair flood damages and design and construct projects that include the S. 277th revetment, Jan Road and the Cedar River Trail Site A on the Cedar River, Ribary Creek and the Nintendo Levee on the South Fork Snoqualmie, and elevation of the Tolt River Road in four locations. The 2017 budget also included multiple proviso reports that were delivered in the first quarter of 2017.

Finance staff provided 345 hours responding to audit questions from the District and the State Auditor’s Office from January 1, 2016, through March 31, 2017. Contract administration staff supported the development of 14 new contracts, 88 work orders, and 29 amendments. New contracts and work orders issued during the reporting period total just under \$16 million. During this reporting period, contract administration staff also participated in ten contract audits.

Status Update of Flood Control District Grant Awards and Sub-Regional Opportunity Fund for 2016

In March 2015, the WLR Division conducted a retroactive assessment of the status of the three funding programs: the Cooperative Watershed Management (CWM) grants, the Flood Reduction (FR) Grants and the Sub-Regional Opportunity (SRO) Fund. This section provides an update through 2016 for those programs.

Cooperative Watershed Management Grants Status

In 2016, 44 new CWM grants were awarded for just under \$4.3 million. This is the fifth year of the program and it brings the cumulative totals for awards to 184 grants for a total amount of about \$18.7 million (see Figure 1).

Figure 1 shows the slowing of the rate of expenditure from 2015 (64% of total budget) to 2016 (59% of total budget). This slowing of the expenditure rate is due in part to the way that expenses were accounted (some expenditures counted for 2015 should have been recorded in 2016). The annual growth in expenditures is expected to become more consistent as the completion of older projects begins to keep pace with the addition of new awards.

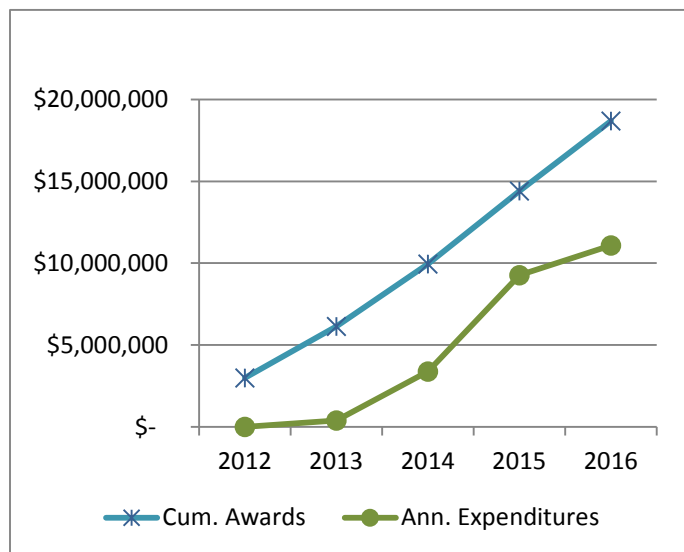


Figure 1. CWM Cumulative Awards and Expenditures

CWM grants fund many different types and sizes of projects. Through 2016, 71 percent of the total awarded funds was dedicated to site-specific restoration and acquisition projects (Figure 2).

In 2016, 22 projects were completed, bringing the cumulative total to 67 finished projects or 36 percent of the 184 projects that have been awarded since 2012. Restoration and outreach/education each comprise about one-third of the completed projects. On average, projects of all types have been completed within roughly 18 months, with restoration projects averaging longer at 23 months.

Accomplishments were tallied for projects that were completed by the end of 2016 (Table 1).

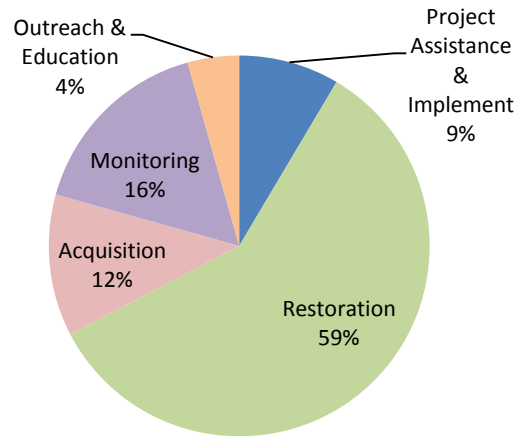


Figure 2. Dollars Awarded by Project Type

Table 1. Cumulative CWM Grant accomplishments through 2016.

Measure	Previous Totals Through 2015	Milestones Completed in 2016	Updated Totals Through 2016
Plans/assessments completed	23	4	27
Stream channel reconstructed (linear feet)	250		250
Floodplain/aquatic habitat reconnected (acres)	50	3	53
Fish passage barriers removed	1		1
Levee/bank armoring removed (linear feet)	3,630	520	4,150
Riparian area planted (acres)	27	31	58
Riparian area treated for invasive plants (acres)	118	35	153
Wood structures installed	33	10	43
Area permanently protected by acquisition/easement (acres)	23		23
Bank/shoreline permanently protected (linear feet)	980	2,625	3,605
Built structures removed from floodplain	9	48	57
Naturalists/stewards trained	1,006	452	1,458
Public events held	154	227	381
Attendees or public contacts	195,223	81,121	276,344
Students reached	9,761	10,177	19,938
Monitoring events	257	4	261

Flood Reduction Grants

In 2016, 17 new grants were awarded, bringing the total number of grants since 2014 to 49. The 2016 funds of \$3.3 million raised the total awarded to \$8.8 million (Figure 3). These awards have gone primarily to cities and towns in King County.

Expenditures for the Flood Reduction grants in 2016 totaled \$1.9 million, which is more than triple the amount expended in 2015. This acceleration in spending is typical for the early years of a grant program. Of the total funds awarded for the program, 29 percent have been expended.

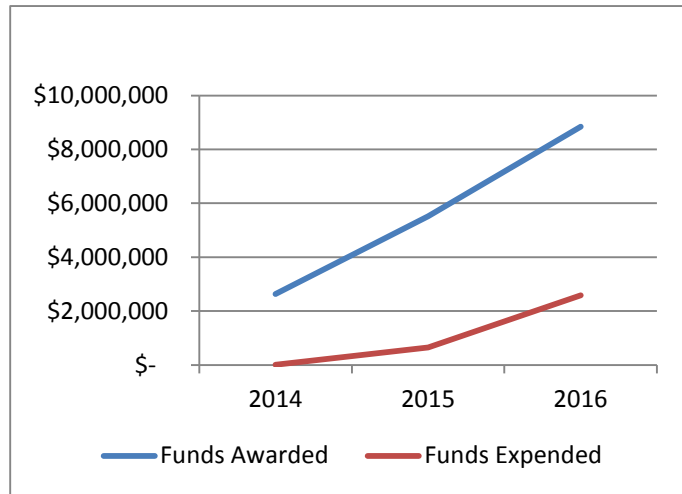


Figure 3. Flood Reduction Funds Cumulated by Year

Only nine projects, or 18 percent of the total number, had been completed by the end of 2016. Table 2 summarizes the cumulative accomplishments for these completed projects.

Table 2. Cumulative Flood Reduction Grant accomplishments through 2016.

Measure	Previous Totals Through 2015	Milestones Completed in 2016	Updated Totals Through 2016
Stream channel reconstructed (linear feet)	200	450	650
Stormwater conveyance pipe installed/replaced (linear feet)	697	7,627	8,324
Improved stormwater outfalls installed	1	2	3
Floodwalls/berms installed (linear feet)	260	400	660
Pump stations installed		1	1
Sediment management facilities installed		8	8
Drainage ditches improved (linear feet)		14,300	14,300
Agricultural drainage tiles replaced (linear feet)		2,067	2,067
Rain gardens installed (square feet)		6,000	6,000
Woody debris installed (pieces)	12		12
Native plants installed	4,000		4,000
Floodplain acquired & protected (acres)		3.52	3.52
Lake management assessment and plan developed	1		1

Subregional Opportunity Fund Status

Over the ten years this fund has been available, the District has allocated a total of \$43.2 million. The expenditures from this fund through 2016 total \$26.9 million, or about 62 percent of all

funds allocated. The percent expended is very similar to that of 2015 so expenditures are keeping pace with new dollars added in 2016. Looking at individual expenditure rates, there are seven cities that have no expenditures, while 20 cities have spent over half of their allotted funds.

Of the 182 projects that have been proposed, 116 or 64 percent were completed by the end of 2016. The types of projects completed consist largely of stormwater system improvements, but also include a variety of river and stream improvements.

Attachments

2016 Final Budget

Flood Control District Administration

Flood District Administration \$671,932

Operating Budget

Description	
Annual Maintenance	\$2,333,300
Flood Hazards Plan, Grants, Outreach	\$425,000
Flood Hazard Studies, Maps, Technical Services	\$1,204,000
Flood Preparation, Flood Warning Center	\$463,000
Program Management, Supervision, Finance, Budget	\$791,400
Program Implementation	\$1,629,600
Overhead / Central Costs	\$2,699,000
District Planning, Outreach, Policy Technical Services	\$392,000
Total	\$9,937,300

Capital Budget ¹

Project	Description	
Snoqualmie River Basin		
1129356	WLFL0 MILLER R RD RVTMNT 2016 REPAIR	\$50,000
1112057	WLFL0 SKY W RVR DR FLOOD STUDY	\$78,762
1044461	WLFL0 SF SKYKMSH REP LOSS MIT	\$284,074
1129357	WLFL0 SKYKOMSIH LB DOWN 2016 REPAIR	\$150,000
1129358	WLFL0 SKYKOMSIH LB UP 2016 REPAIR	\$260,845
1044460	WLFL0 TIMBER LN EROSN BUYOUTS	\$1,086,962
1129359	WLFL0 TIMBERLANE 2016 REPAIR	\$52,500
1126589	WLFL1 428TH AVE SE BR FEASIBILITY	\$296,631
1121044	WLFL1 CIRCLE RVR RANCH RISK RED	\$85,775
1129360	WLFL1 MASON THRSN EXT 2016 REPAIR	\$240,000
1121588	WLFL1 MF SNO CORRIDOR IMP	\$1,100,000
1044469	WLFL1 MF SNO CORRIDOR PLAN	\$521,617
1044465	WLFL1 N BEND RESID FLD MITGTN	\$10,859
1129361	WLFL1 NORTH FORK BRIDGE 2016 REPAIR	\$385,000
1129362	WLFL1 REIF RD 2016 REPAIR	\$50,000
1129363	WLFL1 SHAKE MILL RB 2016 REPAIR	\$20,000
1129364	WLFL1 SHAKE MILL LB 2016 REPAIR	\$100,000
1122632	WLFL1 SF SNO CORR EARLY ACTION	\$2,363,038
1121587	WLFL1 SF SNO CORRIDOR IMP	\$130,771
1044466	WLFL1 SF SNO CORRIDOR PLAN	\$285,273
1126590	WLFL1 UPPER SNOQ 2015 FLOOD REPAIR	\$700,000
1044517	WLFL1 UPR SNO RES FLD MITGTN	\$2,762,685
1044581	WLFL2 FARM FLOOD TSK FORCE IMP	\$165,778
1044580	WLFL2 L SNO REP LOSS MITGTION	\$443,997
1044576	WLFL2 L SNO/ALDAIR CORRDROR PLN	\$1,277,782
1044582	WLFL2 LWR SNO RESDL FLD MITGTN	\$926,874
1122633	WLFL2 SE 19TH WAY REVETMENT	\$544,801
1126591	WLFL2 SE DAVID POWELL RD	\$987,919
1126592	WLFL2 SE FISH HATCHERY RD	\$484,282
1044579	WLFL2 TOLT PIPELINE PROTECTION	\$1,534,221
1129365	WLFL3 FREW LEVEE 2016 REPAIR	\$50,000
1129366	WLFL3 GIRL SCOUT LEVEE 2016 REPAIR	\$20,000

1044645 WLFL3 SAN SOUCI NBRHOOD BUYOUT	\$826,138
1126593 WLFL3 TOLT 2015 FLOOD REPAIRS	\$880,603
1123253 WLFL3 TOLT CORRIDOR IMPLMNTN	\$25,252
1044644 WLFL3 TOLT CORRIDOR PLAN	\$122,435
1112058 WLFL3 TOLT R MILE 1.1 SETBACK	\$1,630,246
1115032 WLFL3 TOLT R NATURAL AREA ACQ	\$500,660
1126597 WLFL3 TOLT R RD ELEVATION FEASIBILITY	\$250,000
1044647 WLFL4 ALPINE MANOR NEIGHBORHOOD BUYOUT	\$658,760
TOTAL SNOQUALMIE BASIN	\$22,344,540

Cedar River Basin

1124988 WLFL5 SAMMAMISH R BANK REPAIRS	\$384,930
1112037 WLFL5 WILLOWMOOR FLDPLAIN REST	\$964,408
1116846 WLFL6 LOWER COAL CRK PH I	\$765,808
1116847 WLFL6 MCALEER/LYON CHAN IMPRVM	\$15,280
1044734 WLFL7 CDR PRE-CONST STRTGC ACQ	\$308,282
1128284 WLFL7 FBD CORRIDOR IMPLEMENTATION	\$2,150,000
1123252 WLFL7 CEDAR CORRIDOR IMPLMNTN	\$16,763
1116060 WLFL7 CEDAR LEVEE SETBACK FEAS (Cedar Corric	\$908,824
1044651 WLFL7 CEDAR R REP LOSS MITGATN	\$640,471
1044729 WLFL7 CEDAR RVR GRAVEL REMOVAL	\$10,780,466
1112041 WLFL7 ELLIOTT BR LEVEE SETBACK	\$260,524
1112029 WLFL7 RAINBOW BEND LEVEE STBCK	\$402,361
1119888 WLFL7 RIVERBEND MHP ACQ	\$1,977,916
TOTAL CEDAR RIVER BASIN	\$19,576,033

Green River Basin

1116360 WLFL8 BLACK R PUMP STATION	\$2,520,919
1116515 WLFL8 BRISCOE LEVEE SETBACK	\$2,767,333
1124990 WLFL8 DESIMONE USACE 2015	\$831,775
1126059 WLFL8 DYKSTRA USACE 2015	\$1,630,670
1044882 WLFL8 GREEN R PL84-99 MITIGATN	\$714,873
1112033 WLFL8 HORSESHOE BND ACQ-RCNCT	\$2,505,540
1112056 WLFL8 LWR RUSSELL LEVEE SETBACK	\$5,599,001
1126595 WLFL8 MILWAUKEE LEVEE #2-KENT	\$8,500,000
1124992 WLFL8 PORTER LEVEE	\$300,000
1112035 WLFL8 REDDINGTON REACH SETBACK	\$484,982
1044881 WLFL8 RUSSELL RD UPPER KENT	\$995,184
1127209 WLFL8 S 277TH ST REVETMENT	\$294,942
1123254 WLFL8 SWIF IMPLEMENTATION	\$38,806
1129367 WLFL8 TUK-205 GACO WSTRN RPAIR	\$50,000
1116363 WLFL8 USACE SWIF	\$91,887
WLFL8 LWR GRN R CORRIDOR PLAN/EIS	\$1,743,249
TOTAL GREEN RIVER BASIN	\$29,069,161

White River Basin

1112049 WLFL9 COUNTYLINE TO A STREET	\$8,535,785
1112038 WLFL9 RIGHT BANK LEVEE SETBACK	\$3,785,608
1122630 WLFL9 WHITE - GREENWATER ACQ	\$375,000
TOTAL WHITE RIVER BASIN	\$12,696,393

Seattle Projects

1112036 WLFLS SOUTH PARK PUMPSTATION	\$1,126,665
1129203 WLFLS S PARK DRAINAGE IMPROVEMENTS	\$500,000
TOTAL SEATTLE PROJECTS	\$1,626,665

Countywide Costs

1124993 WLFLX CORRIDOR PLN DESIGN/CONST PLACEHOI	\$142,610
1122628 WLFLG FLOOD REDUCTION GRANTS	\$7,892,560
1112022 WLFLM EFFECTIVENESS MONITORING	\$422,038
1045042 WLFLO SUBREGNL OPPRTNTY FUND	\$15,247,689
1044281 WLFLX CENTRAL CHARGES	\$374,560
1044279 WLFLX FLOOD EMERGENCY CONTGNCY	\$490,086
1117333 WLFLX WRIA GRANTS	\$9,229,110
TOTAL COUNTYWIDE COSTS	\$33,656,043

TOTAL CAPITAL BUDGET	\$119,111,445
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Flood Control District Total	\$129,720,677
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2016 Expenditures

Flood Control District Administration

Flood District Administration \$537,099

Operating Budget

Description	Budget
Annual Maintenance	\$1,739,316
Flood Hazards Plan, Grants, Outreach	\$285,536
Flood Hazard Studies, Maps, Technical Services	\$1,140,460
Flood Preparation, Flood Warning Center	\$335,073
Program Management, Supervision, Finance, Budget	\$937,136
Program Implementation	\$1,931,768
Overhead / Central Costs	\$1,878,700
Total	\$8,247,988

Capital Budget

Project	Description	Budget
Snoqualmie River Basin		
1129356	WLFL0 MLR R RD RVTMNT 2016 RPR	\$1,409
1044461	WLFL0 SF SKYKMSH REP LOSS MIT	\$11,829
1129357	WLFL0 SKY LB DOWN 2016 REPAIR	\$61,767
1129358	WLFL0 SKY LB UP 2016 REPAIR	\$7,658
1044460	WLFL0 TIMBER LN EROSN BUYOUTS	\$303,790
1129359	WLFL0 TIMBERLANE 2016 REPAIR	\$11,040
1126589	WLFL1 428TH AVE SE BR FEASIBILITY	\$165,245
1044469	WLFL1 MF LEVEE SYSTEM IMPRVMNT	\$7,311
1121588	WLFL1 MF SNO CORRIDOR IMP	\$954
1044465	WLFL1 N BEND RESID FLD MITGTN	\$10,661
1129361	WLFL1 NORTH FORK BRIDGE 2016 REPAIR	\$111
1044466	WLFL1 SF LEVEE SYSTEM IMPROVE	\$136,733
1122632	WLFL1 SF SNO CORR EARLY ACTION	\$173,382
1126590	WLFL1 UPPER SNOQ 2015 FLOOD REPAIR	\$5,673
1044517	WLFL1 UPR SNO RES FLD MITIGTN	\$682,785
1044576	WLFL2 ALDAIR BUYOUT	\$122,054
1044581	WLFL2 FARM FLOOD TSK FORCE IMP	\$113,189
1044580	WLFL2 L SNO REP LOSS MITGTION	\$530
1044582	WLFL2 LWR SNO RESDL FLD MITGTN	\$223,020
1122633	WLFL2 SE 19TH WAY REVETMENT	\$213,761
1126591	WLFL2 SE DAVID POWELL RD	\$137,454
1126592	WLFL2 SE FISH HATCHERY RD	\$109,125
1112046	WLFL2 SINNEMA QUAALE 2011 REPR	\$1,770,440
1044579	WLFL2 SNOQUALMIE 13.5 REVETMN	\$419,012
1112034	WLFL3 LOWER TOLT R ACQUISITION	(\$215,000)
1044645	WLFL3 SAN SOUCI NBRHOOD BUYOUT	\$4,484
1126593	WLFL3 TOLT 2015 FLOOD REPAIRS	\$27,393
1044644	WLFL3 TOLT CORRIDOR PLAN	\$122,592
1112058	WLFL3 TOLT R MILE 1.1 SETBACK	\$27,746
1115032	WLFL3 TOLT R NATURAL AREA ACQ	\$1,224
TOTAL SNOQUALMIE BASIN		\$4,657,372

Cedar River Basin

1124988	WLFL5 SAMMAMISH R BANK REPAIRS	\$90,980
1112037	WLFL5 WILLOWMOOR FLDPLAIN REST	\$137,235
1116846	WLFL6 LOWER COAL CRK PH I	\$766,983
1116847	WLFL6 MCALEER/LYON CHAN IMPRVM	\$16,031
1112024	WLFL7 BELMONDO FEMA 1653 PH I	\$1,993
1044734	WLFL7 CDR PRE-CONST STRTGC ACQ	\$10,315
1116060	WLFL7 CEDAR LEVEE SETBACK FEAS	\$545,661
1044651	WLFL7 CEDAR R REP LOSS MITGATN	\$34,299
1044729	WLFL7 CEDAR RVR GRAVEL REMOVAL	\$7,531,919
1112041	WLFL7 ELLIOTT BR LEVEE SETBACK	\$3,189
1128284	WLFL7 FBD CORRIDOR IMPLEMENTATION	\$932,547
1112029	WLFL7 RAINBOW BEND LEVEE STBCK	\$137,455
1119888	WLFL7 RIVERBEND MHP ACQ	\$117,433
TOTAL CEDAR RIVER BASIN		\$10,326,041

Green River Basin

1116360	WLFL8 BLACK R PUMP STATION	\$2,280,757
1116515	WLFL8 BRISCOE LEVEE SETBACK	\$798,135
1124990	WLFL8 DESIMONE USACE 2015	(\$33,527)
1126059	WLFL8 DYKSTRA USACE 2015	\$583,929
1044882	WLFL8 GREEN R PL84-99 MITIGATN	\$319,773
1112033	WLFL8 HORSESHOE BND ACQ-RCNCT	\$17,819
1112056	WLFL8 LWR RUSSELL/HOLIDAY	\$4,620,029
1126595	WLFL8 MILWAUKEE LEVEE #2-KENT	\$10,768
1112035	WLFL8 REDDINGTON REACH SETBACK	\$160,750
1044881	WLFL8 RUSSELL RD UPPER	\$1,028,629
1127209	WLFL8 S 277TH ST REVETMENT	\$85,471
1129367	WLFL8 TUK-205 GACO WSTRN RPAIR	\$44,246
1116363	WLFL8 USACE SWIF	\$13,980
TOTAL GREEN RIVER BASIN		\$9,930,760

White River Basin

1112049	WLFL9 COUNTYLINE TO A STREET	\$5,628,949
1112038	WLFL9 RIGHT BANK LEVEE SETBACK	\$2,982,248
TOTAL WHITE RIVER BASIN		\$8,611,198

Seattle Projects

1129203	WLFLS S PARK DRAIN IMPROVMNTS	\$720
1112036	WLFLS SOUTH PARK DWMSH BACKWTR	\$222,309
TOTAL SEATTLE PROJECTS		\$222,309

Countywide Costs

1122628	WLFLG FLOOD REDUCTION GRANTS	\$1,936,697
1117333	WLFLG WATERSHED MGMT GRANTS	\$1,868,625
1112022	WLFLM EFFECTIVENESS MONITORING	\$177,652
1045042	WFLO SUBREGNL OPPRTNTY FUND	\$4,346,649
1044281	WLFLX CENTRAL CHARGES	\$160,724
1044279	WLFLX FLOOD EMERGENCY CONTGNCY	(\$916)
0000000	Default	\$18,423
TOTAL COUNTYWIDE COSTS		\$8,507,853

TOTAL CAPITAL BUDGET		\$42,256,253
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Flood Control District Total		\$51,041,340
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2017 Budget**Flood Control District Administration**

Flood District Administration	\$692,090
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Operating Budget

Description	
Annual Maintenance	\$2,589,281
Flood Hazards Plan, Grants, Outreach	\$318,123
Flood Hazard Studies, Maps, Technical Services	\$1,304,619
Flood Preparation, Flood Warning Center	\$863,033
Program Management, Supervision, Finance, Budget	\$951,992
Program Implementation	\$1,165,633
Overhead / Central Costs	\$3,327,496
District Planning, Outreach, Policy Technical Services	\$392,000
Total	\$10,912,177

Capital Budget ¹

Project	Description	
Snoqualmie River Basin		
1129356	WLFL0 MILLER R RD RVTMNT 2016 REPAIR	\$710,799
1044461	WLFL0 SF SKYKMSH REP LOSS MIT	\$39,188
1044460	WLFL0 TIMBER LN EROSN BUYOUTS	\$232,068
1044465	WLFL1 N BEND RESID FLD MITGTN	(\$10,859)
1129362	WLFL1 REIF RD 2016 REPAIR	\$179,950
1129363	WLFL1 SHAKE MILL RB 2016 REPAIR	\$32,169
1129364	WLFL1 SHAKE MILL LB 2016 REPAIR	\$700,000
1122632	WLFL1 SF SNO CORR EARLY ACTION	\$2,000,000
1044517	WLFL1 UPR SNO RES FLD MITIGTN	\$738,893
1116342	WLFL2 DUTCHMAN RD REPAIR	\$209,914
1044581	WLFL2 FARM FLOOD TSK FORCE IMP	\$42,822
1044576	WLFL2 L SNO/ALDAIR CORRDROR PLN	\$452,218
1044582	WLFL2 LWR SNO RESDL FLD MITGTN	\$675,305
1122633	WLFL2 SE 19TH WAY REVETMENT	\$1,082,706
1126591	WLFL2 SE DAVID POWELL RD DOWNSTREAM	\$36,456
1126592	WLFL2 SE FISH HATCHERY RD	\$27,905
1130513	WLFL2 DUVALL BRIDGE 1136A	\$30,000
1130514	WLFL2 SE DAVID POWELL RD UPSTREAM	\$250,000
1130516	WLFL2 WOODINVILLE DUVALL BR 1136B/1136E	\$100,000
1044579	WLFL2 TOLT PIPELINE PROTECTION	\$6,140,378
1129365	WLFL3 FREW LEVEE 2016 REPAIR	\$100,000
1129366	WLFL3 GIRL SCOUT LEVEE 2016 REPAIR	\$40,000
1044645	WLFL3 SAN SOUCI NBRHOOD BUYOUT	\$604,147
1123253	WLFL3 TOLT CORRIDOR IMPLMNTN	\$75,000
1112058	WLFL3 TOLT R MILE 1.1 SETBACK	(\$215,246)
1115032	WLFL3 TOLT R NATURAL AREA ACQ	\$30,107
1130553	WLFL4 RAGING R BRIDGE 1008E	\$80,000
1044647	WLFL4 ALPINE MANOR NEIGHBORHOOD BUYOUTS	(\$93,760)
TOTAL SNOQUALMIE BASIN		\$14,290,160

Cedar River Basin

1124988 WLFL5 SAMMAMISH R BANK REPAIRS	\$19,895
1112037 WLFL5 WILLOWMOOR FLDPLAIN REST	\$485,281
1116846 WLFL6 LOWER COAL CRK PH I	\$2,275,000
1044734 WLFL7 CDR PRE-CONST STRTGC ACQ	\$1,499,718
1123252 WLFL7 CEDAR CORRIDOR IMPLMNTN	\$328,437
1044651 WLFL7 CEDAR R REP LOSS MITGATN	\$58,679
1044729 WLFL7 CEDAR RVR GRAVEL REMOVAL	\$774,117
1128284 WLFL7 FBD CORRIDOR IMPLEMENTATION	\$3,555,500
1130556 WLFL7 SE 162ND AVE AT 266TH CT	\$150,000
1130557 WLFL7 SR 169 FEASIBILITY STUDY	\$260,000
1112029 WLFL7 RAINBOW BEND LEVEE STBCK	(\$264,906)
TOTAL CEDAR RIVER BASIN	\$9,141,721

Green River Basin

1129569 WLFL8 BRPS CONTROL BLDG RPLCMT	\$50,000
1129574 WLFL8 BRPS HIGH-USE ENGINES	\$252,900
1130559 WLFL8 PATTON BRIDGE 3015	\$150,000
1124990 WLFL8 DESIMONE USACE 2015	\$63,620
1126059 WLFL8 DYKSTRA USACE 2015	(\$1,295,068)
1044882 WLFL8 GREEN R PL84-99 MITIGATN	\$981,430
1112033 WLFL8 HSB BREDA SETBACK	\$1,755,000
1129576 WLFL8 HSB MCCOY REALIGNMENT	\$400,000
1123254 WLFL8 HSB NURSING HOME SETBACK	(\$38,806)
1112056 WLFL8 LWR RUSSELL LEVEE SETBACK	\$5,056,270
1124992 WLFL8 PORTER LEVEE	\$420,000
1130562 kWLFL8 SIGNATURE POINTE REVETMENT	\$300,000
1129367 WLFL8 TUK-205 USACE GACO REPAIR	\$80,440
1129577 WLFL8 TUK-205 SEGALE FLOODWALL	\$5,640,000
1116363 WLFL8 USACE SWIF	(\$81,887)
TOTAL GREEN RIVER BASIN	\$13,733,899

White River Basin

1112049 WLFL9 COUNTYLINE TO A STREET	\$5,212,688
1112038 WLFL9 RIGHT BANK LEVEE SETBACK	\$769,785
1122630 WLFL9 WHITE - GREENWATER ACQ	(\$375,000)
TOTAL WHITE RIVER BASIN	\$5,607,473

Seattle Projects

1112036 WLFLS SOUTH PARK PUMPSTATION	\$3,310,756
1129203 WLFLS S PARK DRAINAGE IMPROVEMENTS	\$500,000
TOTAL SEATTLE PROJECTS	\$3,810,756

Countywide Costs

1122628 WFLG FLOOD REDUCTION GRANTS	\$3,058,908
1112022 WFLM EFFECTIVENESS MONITORING	\$357,399
1045042 WFLG SUBREGNL OPPRTNTY FUND	\$5,743,771
1044281 WFLX CENTRAL CHARGES	(\$284,560)
1044279 WFLX FLOOD EMERGENCY CONTGNCY	\$9,914
1117333 WFLX WRIA GRANTS	\$4,390,296
TOTAL COUNTYWIDE COSTS	\$13,275,728

TOTAL CAPITAL BUDGET	\$59,859,737
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Flood Control District Total	\$71,464,004
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Notes:

1) The amounts shown here represent the budget as adopted in Resolution FCD2016-20.3. It is the new appropriation for 2017 and does not include carryover budget from the prior year. It is anticipated the FCD Board of Supervisors will adopt the carryover additions to the budget in the second quarter of 2016.