



# KING COUNTY

1200 King County Courthouse  
516 Third Avenue  
Seattle, WA 98104

## Signature Report

November 7, 2018

### FCD Resolution

**Proposed No.** FCD2018-09.2

**Sponsors**

1           A RESOLUTION relating to the operations and finances of  
2           the District, adopting the 2019 budget and authorizing  
3           improvements.

4           WHEREAS, pursuant to RCW 86.15.140, the King County Flood Control Zone  
5   District ("District") held a public hearing on the proposed 2019 budget of the District on  
6   November 5, 2018, and

7           WHEREAS, the board of supervisors ("Board") desires to adopt the District's  
8   2019 budget, and

9           WHEREAS, by Ordinance 15728, the King County council adopted the District's  
10   initial comprehensive plan of development for flood and stormwater control, which is  
11   titled "2006 King County Flood Hazard Management Plan," and by Resolution  
12   FCD2011-05.1, the District Board amended the initial plan to include a project in the city  
13   of Seattle (collectively, "the District Comprehensive Plan"), and

14           WHEREAS, pursuant to RCW 86.15.110, the Board must approve by resolution  
15   all flood control and storm water control improvements, prior to the extension,  
16   enlargement, acquisition or construction of such improvements, and

17           WHEREAS, RCW 85.15.110, further provides that such approval resolution must  
18   state whether the improvements are to be extended, enlarged, acquired or constructed;  
19   state that the comprehensive plan has been adopted; state that the improvements generally

20 contribute to the objectives of the comprehensive plan; state that the improvements will  
21 benefit the county as a whole; state the estimated costs of the improvements; and identify  
22 the data supporting the estimated costs, and

23 WHEREAS, the Board desires to approve improvements in the District's 2019  
24 budget that are not in the District Comprehensive Plan, or that have been modified by the  
25 District's 2019 budget, in accordance with RCW 85.15.110, and

26 WHEREAS, the District reaffirms its commitment to the effective and efficient  
27 implementation of capital projects by contracting with King County, as its primary  
28 service provider, and other jurisdictions when appropriate;

29 NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF  
30 SUPERVISORS OF THE KING COUNTY FLOOD CONTROL ZONE DISTRICT:

31 SECTION 1. The Board hereby adopts the 2019 Budget for the District, as set  
32 forth in Attachments A ("Work Program"), B ("2019 Annual Budget"), C ("2019 Annual  
33 Operating Budget"), D ("2019 Annual Capital Budget"), E ("2016 - 2024 Six-Year CIP"),  
34 F ("2019 Annual District Oversight Budget"), G ("2019 Subregional Opportunity Fund  
35 Allocations") and H ("2019-2024 Six-Year CIP Project Allocations"); provided that King  
36 County, or other jurisdictions contracted to implement projects, shall submit predesign  
37 reports for capital projects to the District executive director, and shall seek approval from  
38 the executive director of project charters. Furthermore, King County shall provide to the  
39 District executive committee thirty percent design project reports for authorization to  
40 proceed with sixty percent design.

41 SECTION 2. The Board approves the extension, enlargement, acquisition or  
42 construction, as applicable, of the improvements that are included in the District

43 Comprehensive Plan, that are included in the District Comprehensive Plan but have been  
44 modified by Attachments C, D and H to this resolution are identified in Attachments C, D  
45 and H to this resolution (collectively, the "Improvements"). The District Comprehensive  
46 Plan includes the streams or water courses upon which the Improvements will be  
47 enlarged, extended, acquired or constructed. The Board determines that the  
48 Improvements generally contribute to the objectives of the District Comprehensive Plan  
49 and will be of benefit to the county as a whole.

50 SECTION 3. The estimated costs of the Improvements are stated in Attachments  
51 C, D and H to this Resolution and the supporting data for the estimated costs are on file  
52 with the director of the King County water and land resources division.

53 SECTION 4. For Improvements that will be constructed, preliminary engineering  
54 studies and plans either have been prepared or will be prepared, and have been filed or  
55 will be filed, with the director of the King County water and land resources division.

56 SECTION 5. The Board authorizes the executive committee to modify project  
57 budgets and schedules identified in Attachment H.

58 SECTION 6. The Board directs the District Executive Director to undertake a  
59 study examining how to increase efficiency and efficacy in flood control capital project  
60 planning, delivery and cost. The study shall include, but not be limited to, staffing  
61 analysis for District administration; a comparison of District capital project delivery with  
62 industry best practices and other nationwide flood control jurisdictions; an evaluation of  
63 the District's financial plan and a comparison to industry best practices, an analysis of  
64 capital project planning best practices; recommendations and options to increase  
65 efficiency and efficacy in capital project delivery.

66

67        SECTION 7. The Board directs the District Executive Director to develop a  
68 framework to communicate District priorities for the District's Cooperative Watershed  
69 Management (CWM) grant program prior each Water Resource Inventory Area's annual  
70 deliberation process for recommendations to the District for CWM grants.

71        SECTION 8. The Board directs the District Executive Director to develop a new  
72 District website.

73        SECTION 9. The Board directs the District Executive Director to work with  
74 King County water and land resources division to work with willing landowners to  
75 acquire the property necessary to complete a levee setback at the Gaco-Mitchell portion  
76 of the Tukwila 205 levee in Tukwila.

77        SECTION 10. Section 3.6 of the interlocal agreement between the District and  
78 King County provides that King County shall notify the District executive director in  
79 writing if the county needs to modify or reprioritize capital projects. King County's  
80 notifications to the District executive director should include information regarding  
81 variations within project budgets of more than twenty percent in the "acquisition,"  
82 "design," "construction," "contingency" and "total" expenditure categories, shown on

83 Attachment D to this resolution.

84

FCD Resolution was introduced on and passed as amended by the King County Flood Control District on 11/5/2018, by the following vote:

Yes: 9 - Mr. von Reichbauer, Mr. Gossett, Ms. Lambert, Mr. Dunn,  
Mr. McDermott, Mr. Dembowski, Mr. Upthegrove, Ms. Kohl-Welles  
and Ms. Balducci

No: 0

Excused: 0

KING COUNTY FLOOD CONTROL DISTRICT  
KING COUNTY, WASHINGTON

  
Reagan Dunn, Chair

ATTEST:



Melani Pedroza, Clerk of the Board



**Attachments:** A. King County Flood Control District 2018 Work Program dated November 5, 2018, B. 2019 Annual Budget dated November 1, 2018, C. 2019 Operating Budget dated November 1, 2018, D. 2019 Annual Capital Budget dated November 1, 2018, E. 2019-2024 Six-Year CIP dated November 1, 2018, F. 2019 Annual District Oversight Budget dated November 1, 2018, G. 2019 Subregional Opportunity Fund Allocations dated November 1, 2018, H. 2019-2024 Six-Year CIP Project Allocations dated November 1, 2018

### **King County Flood Control District 2019 Work Program**

The District work program is comprised of three categories: district oversight and policy development, operations, and capital improvements. The Flood Control District contracts with King County for operations and capital improvements.

- **District Oversight and Policy Development**
  - Policy direction to guide Advisory Committee and King County as service provider
  - Financial planning, budgeting, levy rate, bonding (if any)
  - Administration of contracts
  - Asset management
  - Capital improvement priorities
  - Capital improvement implementation evaluation
  - Public awareness priorities
  - Post flood event review and evaluation
  - Federal and state legislative agenda
  - Legal services, financial management, and Washington State audit
- **Operations Work Program**
  - Annual Maintenance
  - Flood Hazards Plan, Grants, Outreach
  - Flood Hazard Studies, Maps, Technical Services
  - Flood Preparation, Flood Warning Center, Post Flood Recovery
  - Program Management, Supervision, Finance, Budget
  - Program Implementation,
  - District Planning, Outreach, Policy and Technical Services
- **Capital Improvement Program (CIP)**
  - Capital Improvement Projects Acquisitions and Elevations
  - Programmatic capital funding (Subregional Opportunity Fund, Cooperative Watershed Management Grants, Flood Reduction Grants)

### **2019 Priorities:**

#### Management & Budget

- Seek federal assistance with US Army Corps issues
- Align capital expenditure schedules
- Provide budget issue requests to Advisory Committee
- Examining how to increase efficiency and efficacy in flood control capital project planning and delivery including a staffing analysis for District administration, an evaluation of the District's financial plan.

#### Policy Development

- Develop prioritization framework for Cooperative Watershed Management grant program
- Equity and Social Justice Policy
- Evaluate Home Elevation Program to recommend policy changes to make program more effective and accessible for residents at risk of flooding

#### Capital Projects

- Establish reporting format for delineating that portion a project's capital budget that meets habitat mitigation requirements and that portion dedicated to habitat restoration benefits
- Reports from WLRD on capital project progress

#### Real Estate

- Purchase property from willing sellers necessary for the capital project at the Gaco-Mitchell portion of the Tukwila 205 levee.
- Update facility inventory and real estate records
- Address property title issues

#### Planning and Studies

- Snoqualmie Middle Fork Planning Process
- Lower Green River Planning Process
- 2018 Flood Hazard Management Plan Update Process
- Levee Breach Study to evaluate and identify gaps in evacuation and shelter in place plans in areas impacted by a levee breach

#### Grants

- Monitor Opportunity Fund Project Implementation
- Monitor WRIA/CWM Grant progress and identify leveraging opportunities
- Develop prioritization framework for WRIA/CWM Grant Program
- Outreach for Flood Reduction Grants Program including funding opportunities for dam inundation mapping

#### Communications

- Develop new and updated District website
- Review and approve communications plans by Service Provider for planning processes, advisory committees, large wood, flood awareness, and special initiatives
- Conduct media outreach and response on identified priorities
- Participate in public meetings on priorities

#### King County ILA Service Provider Work Plan

#### Resource Management, Annual Maintenance, and Facility Monitoring

**Program Summary:** Coordinate facility and property maintenance for the District, which includes 500 flood protection facilities covering 119 linear miles and approximately 800 acres of land managed for flood mitigation purposes. Facility inspections and assessments may lead to proposed repairs in the capital program. Inspections and assessments also help to increase the potential for federal funding

assistance for future flood damages.

#### Annual Maintenance Program:

- Manage work authorizations and coordinate with Department of Transportation (DOT) Road Services Division, Washington Conservation Corps, work crews from the Road Division, Earth Corps, the Department of Juvenile and Adult Detention's Community Work Program, or contractors on completion of maintenance activities:
  - Facility mowing
  - Access gate maintenance
  - Access road maintenance
  - Noxious and non-native plant removal
  - Irrigation and watering
  - Interpretive sign installation and maintenance.
- Coordinate design of facility and acquisition property re-vegetation projects.
- Coordinate design and implementation of volunteer planting and other land stewardship projects.
- Provide land and resource management including management of lands for appropriate levels of public access.
- Inspect, assess and, if necessary, remove hazardous trees.
- Collect and remove garbage from fee-simple owned property.

#### Flood Protection Facility Assessment and Monitoring Program

- Develop methods for facility inventory/assessment program.
- Conduct annual, spring and fall, facility assessments.
- Conduct, or assist with, post-flood damage assessments.
- Produce annual report on facility conditions.

#### Facility Maintenance and Repair Program

- Conduct or assist with facility assessments, consistent with the facility assessment and monitoring program.
- Coordinate with the U.S. Army Corps of Engineers (Corps) on PL 84-99 levee inspections including vegetation management, permitting, and mitigation (as necessary).
- Support or lead staff on the Green River Pump Station Operation and Maintenance Program.

#### Sediment Management, Large Woody Debris, In-stream Management Program

- Coordinate sediment management program/project actions to reduce flood risks.
- Coordinate large woody debris program/project actions to reduce flood risks.
- Monitor other in-stream hazards and coordinate associated flood risk reduction actions.

#### Flood Hazard Plan, Grants, Repetitive Loss Mitigation, and Public Outreach

**Program Summary:** Manage repetitive loss area mitigation coordination, public outreach, flood hazard management planning, and grant preparation. Repetitive loss mitigation is generally achieved by buying or elevating at-risk homes. While buyouts and elevations are funded via the capital program, the planning, prioritization, and the Federal Emergency Management Agency (FEMA) grant submittals are funded via the operating program. Most operating costs for grant development are



reimbursable if the FEMA grant is awarded. Public outreach for specific capital projects is funded through the capital program; basin-wide outreach regarding on-going and planned capital projects is considered an operating expense.

#### Repetitive Loss Area Mitigation Planning

##### Program

- Track repetitive loss area and repetitive loss property information.
- Provide ongoing program database updates, including tracking property owner communications, interest, and staff recommendations for mitigation options.
- Manage and administer King County's Home Buyout and Elevation Program consistent with District acquisition policies.

#### Public Outreach and Communications Program

- Provide increased citizen preparedness for floods.
- Provide community outreach support for capital projects.
- Conduct annual basin-wide meetings and outreach regarding the full range of floodplain management activities, whether on-going or planned.
- Support media relation activities.
- Coordinate citizen involvement, and prepare and facilitate public meetings.
- Coordinate updates to webpage and other outreach and educational materials.
- Coordinate outreach to landowners with facility easements regarding maintenance work.
- Coordinate with the District to implement communications protocols.

#### Community Rating System (CRS) and federal Disaster Mitigation Act Coordination

- Manage the CRS program consistent with the newly adopted federal CRS manual, including coordination with other CRS jurisdictions in King County through the CRS Users Group.
- Complete annual CRS recertification documentation.
- Coordinate/manage updates and process to the planning and regulatory processes for future flood plan updates, King County's Regional Hazard Mitigation Plan, King County Comprehensive Plan, Shoreline Master Plan, and Critical Areas Ordinance. This includes coordination with other jurisdictions.

#### Grants Program

If resources are available, the following types of grant activities may be included:

- Develop grant applications for FEMA hazard mitigation assistance grants as well as post-flood funding. Develop other grant applications to support capital project implementation.
- Administer the biennial Washington State Department of Ecology Flood Control Assistance Account Program (FCAAP) grant process and track successful grants to ensure timely reporting.
- Coordinate and assist with preparation of applications for all state and federal flood hazard mitigation grant processes.

Provide grant application technical assistance to cities and other stakeholders, as needed. Grant prioritization within WLRD shall be based on the following considerations, in order of significance:

- The impacts to public safety.
- The portion of the project directly related to flood reduction.
- The risks of potential damage to infrastructure, including but not limited to businesses, homes, farms, and roads.
- Efficiency of staffing hours.

In addition to grant alerts to the District, WLRD shall transmit a grant overview report to the District by June 30 of each year including information with a description of grants for which WLRD has applied and how the above priorities were taken into consideration.

### **Flood Hazard Studies, Maps, and Technical Studies**

**Program Summary:** Generate technical information used to characterize, quantify, and delineate flood risks, as well as to develop and implement strategies and actions to reduce those risks. Flood hazard technical information types include hydrologic and hydraulic studies, floodplain and channel migration zone maps, geologic studies, geographic information system (GIS) land use data, dam operations studies, risk assessments and flood hazard management corridor working maps. These technical assessments are used to inform the capital project feasibility, prioritization, and design process funded by the capital program.

- Conduct independently or with consultant contracts, as needed, the following technical study and mapping projects:
  - Floodplain delineation and mapping
  - Channel migration zone delineation and mapping
  - Channel monitoring
  - Gravel removal studies and analysis
  - Risk assessments
  - Hydraulic modeling
  - Landslide hazard mapping in areas that may intersect major river floodplains.
- Coordinate with FEMA and other local, state and federal agencies on mapping studies and products.
- Maintain accessible flood study and flood hazard data in a floodplain mapping library.

### **Flood Preparation, Flood Warning Center and Post Flood Recovery Program**

**Program Summary:** Implement a comprehensive approach to preparing and educating citizens for flood events, coordinating emergency response and regional flood warning center operations during flood events, and ensuring consistency across basins for post-flood recovery actions. Post-flood damage assessments may result in capital projects to repair damaged facilities. Flood and post-flood activities are tracked with a unique project number so that expenditures may be submitted for any federal assistance that becomes available following a federal disaster declaration.

#### **Flood Preparedness**

- Coordinate flood hazard education program, communication tools (brochures, web content, customer service bulletins, etc.) to increase the awareness of flood risks and prepare citizens for flood events. This includes base-level participation in the regional Take Winter by Storm

campaign.

- Track and disseminate flood hazard technical information to other King County departments (Department of Transportation (DOT), Department of Permitting and Environmental Review (DPER), etc.) and other local, state, and federal agencies.
- Coordinate annual flood awareness month and associated public information program strategy (meetings, websites, other) designed to increase the public's awareness of locally available resources and information.

#### Regional Flood Warning Center

- Staff the Regional Flood Warning Center monitoring and emergency first responder flood patrols during flood events.
- Coordinate with the following agencies in support of the Regional Flood Warning Center operations:
  - Local governments
  - City of Seattle and Corps on dam operations
  - National Weather Service on weather forecasts and flood predictions
  - King County Office of Emergency Management for coordinated emergency response activities
  - United States Geological Survey (USGS) on river gauging contract and gauge upgrades
  - King County DOT on road closures and emergency flood damage and repair response activities.
- Coordinate flood emergency response activities.

#### Post-Flood Recovery Operations Program

- Complete preliminary damage assessments, and develop and track FEMA public assistance Project Worksheet completion, expenditures and general documentation.
- Coordinate with FEMA and Corps on flood damage repairs and federal funding opportunities; determine eligibility.
- Identify projects and complete grant applications for post-disaster FEMA Hazard Mitigation Grant Program opportunities.

### Program Management, Supervision; Finance, Budget and General Administration

**Program Summary:** Provide supervisory, budgeting, contract administration, and administrative services for the District.

#### Management and Supervision Tasks

- Manage the technical and business operations of the District work program and staff.
- Develop annual operating and capital budgets, work programs and staff allocations.
- Provide supervision, technical assistance and quality control/assurance to staff.
- Carry out responsibilities for hiring, management performance, developing training expectations and recommending effective discipline and termination.
- Ensure programs and projects are completed to carry out the goals and objectives of

the River and Floodplain Management Program.

- Work collaboratively with other government and regulatory agencies, departments within King County, and the public to address environmental policies and issues related to floodplain management principles, goals and objectives.

#### Finance and Budget Operations

- Develop annual capital and operating budget.
- Track and report annual capital and operating budget, revenue and expenditures.
- Process approved reimbursement requests for Subregional Opportunity Fund, Water Resource Inventory Area (WRIA) Cooperative Watershed Management grants, and Flood Reduction grants.
- Provide grant and cost-share reporting, billing and documentation.
- Provide contract and procurement management, support and strategy. (Note: contract administration for specific capital projects is charged to the capital project budget rather than the operating budget.)
- Support capital project managers/engineers with detailed project expenditures, revenues, scheduling, contract management and other finance needs in support of CIP implementation.
- Contract record-keeping consistent with county, state, and federal policies and requirements.

#### General Administration

- Records maintenance.
- Copying, filing, correspondence, and scheduling.
- Meeting preparation, coordination and support.
- Photo-documentation management.
- General program administrative support.

#### Compliance

- Provide access to records including but not limited to contracts, invoices, timesheets.
- Respond to annual District audits, King County Council audits, state audits, grant-related audits, and quarterly procurement audits.
- File semi-annual and Annual Report with the Board of Supervisors and Executive Director in printed and electronic form for posting to the District website.
- Notify Executive Director in writing when project scope, budget or schedule change from the adopted capital improvement plan.
- Notify Executive Director of grant requests 30 days prior to grant due date or submittal
- Notify Executive Director of grant award within 10 days of grant approval.
- Work with Executive Committee and Executive Director to support the District's work with Advisory Committee.

### King County Flood Control District Program Implementation

**Program Summary:** Implement flood hazard management programs and coordinate capital improvement projects for the District. Teams of staff are organized by river basin, supported by countywide technical services and countywide planning services, and will be responsible for identifying, implementing, and tracking flood risk reduction program and project actions within a

given basin. Staff also coordinate four basin technical committees with partner jurisdictions and maintain relationships with communities and other agencies.

#### Basin Team and Basin Technical Committee Program

- Staff and coordinate regular Basin Technical Committees.
- Implement work program to guide private property owner and community outreach necessary to complete capital improvement projects.
- Develop ongoing relationships with cities, agencies, and stakeholders within the basin, and ensure consistency across basins.
- Coordinate on acquisition priorities with Acquisition Unit consistent with District acquisition policies.
- Coordinate and support logjam investigation and response/action.
- Respond to, investigate and provide technical assistance for enforcement on complaints and general inquiries. Conduct citizen and/or landowner contact, communication and outreach.
- Conduct annual public meetings about large wood.
- Coordinate with the DOT Road Services Division on construction crew scheduling.
- Provide quarterly project reporting to management.
- Address and seek resolution on basin-specific floodplain management issues.

#### King County Flood Control District Advisory Committee Coordination

- Provide staff support to the Flood Control District Advisory Committee and the Board of Supervisors, as requested by the Executive Director.
- Track basin technical committee meetings, issues, and cross-basin policy issues.
- Coordinate public process across the District to ensure consistent outreach across basins.
- Report District activities, accomplishments, revenues and expenditures through an annual report.
- Respond to Advisory Committee and Board of Supervisors requests for information regarding rate structure options, and other issues.

#### Flood Control District Committee Support

- Provide presentations and updates as requested by the Executive Director at meetings of the Executive Committee and Board of Supervisors.

#### Floodplain Management Planning

- Support Board discussions of policy issues, building on materials previously developed for the Citizens Committee.
- Support Board engagement in capital project planning efforts, including the development of goals and evaluating alternative flood risk reduction actions. Participate in basin planning and coordination efforts such as the Lower Snoqualmie Flood-Fish-Farm work group.

#### Agriculture Needs Assistance

- Provide technical and modeling assistance and permitting support for farm pad proposals.
- Manage compensatory storage bank.
- Provide assistance to identify and pursue mitigation opportunities for barn and other farm structure elevations.

- Implement recommendations of the Farm/Flood Task Force as directed by District Executive Committee.
- Coordinate outreach to farmers and the King County Agriculture Commission to gather input on the unique needs of agriculture lands within flood hazard areas.

### **Capital Improvement Program Implementation**

**Program Summary:** The vast majority of the proposed District work program and budget is dedicated to the implementation of major maintenance and capital projects. This work includes managing and implementing major maintenance, repair and new flood protection facility design, permitting and construction; home buyouts and acquisitions; home and barn elevations; and farm pad cost-share assistance.

The capital projects include those projects to be completed by jurisdictions through the Subregional Opportunity Fund program with funding allocated proportional to assessed value of each jurisdiction, grants recommended through the WRIA cooperative watershed management program, and the flood reduction grant program.

Construction of flood protection infrastructure has paved the way for considerable residential, commercial and industrial economic development in flood hazard areas. The flood protection infrastructure has reduced the frequency of flooding and severity of erosion, and contained flood flows within levees that has allowed for significant economic growth by promoting development of historical floodplains, as exemplified by the industrial and commercial development lining the lower Green River. However, these areas will always face the potential risk that the flood protection facilities could be overwhelmed, resulting in serious flood damage, significant impacts to the regional economy, or personal injury and death. While the costs of flood protection facility construction and maintenance are borne by the public, the value to the economy is a regional benefit.

The CIP will complete high priority and regionally significant flood hazard management capital improvement projects to significantly protect public safety and reduce flood risks to the regional economy, transportation corridors, and public and private infrastructure and property. These capital improvement projects include retrofits and repairs to levees and revetments; levee setbacks to improve slope stability and increase flood conveyance and capacity; and targeted acquisition of repetitive loss properties and other at-risk developments.

The CIP will provide project design, construction and management on the following project implementation elements, consistent with WLR Division's Project Management Manual:

- Scope and Concept
  - Identify problem, alternatives, recommended solution and project goals.
- Feasibility
  - Identify and conduct studies, analysis, cost estimates, resource needs, landowner issues.
- Acquisition
  - Obtain the necessary property rights to perform the work.

- Design and Permitting
  - Address all elements of the project (e.g. geomorphic, constructability)
- Complete all federal, state and local permitting requirements (e.g. Corps, Endangered Species Act (ESA))
  - Survey
    - Conduct pre- and post-construction (“as-built”) survey
  - AutoCAD
    - Develop design plan set
  - Hydraulic Modeling
    - Conduct pre- and post-project modeling
    - Complete Letter of Map Revision (LOMR) for constructed projects, when/if warranted
  - Ecological
    - Conduct pre- and post-construction monitoring
    - Complete pre-project feasibility studies/analysis
    - Provide project design support
    - Complete biological assessments/evaluations
      - Individual
      - Programmatic
    - Complete Section 7 ESA consultation
    - Coordinate or support permitting and permit agency outreach
  - State Environmental Policy Act (SEPA)
    - Complete individual project SEPA review
    - Complete programmatic SEPA review
  - Geotechnical Engineering Support/Geologist/Geotechnical
    - Provide sediment management monitoring, analysis and modeling
    - Conduct pre- and post-construction monitoring
    - Conduct pre-project feasibility studies/analysis
    - Provide project design support
  - Engineering (may include Project Management function as well)
    - Lead design engineer for projects
    - Manage construction of projects
    - Obtain resources for projects; make task assignments
    - Track and report project scope, schedule, and budget
    - Develop plan set for construction, or bid documentation support
    - Provide overall project quality assurance and quality control oversight
  - Project Management
    - Obtain resources for projects; make task assignments
    - Track and report project scope, schedule, and budget
    - Provide overall project quality assurance and quality control oversight
    - Monitoring and Adaptive Management
      - Pre-project baseline information
      - Construction Monitoring
        - Conduct pre- and post-construction monitoring

- Provide monitoring reports to DPER and other agencies as required.

**Central Costs/Overhead and Reimbursement from Capital**

- This category includes use-based and FTE-based overhead costs from the Water and Land Resources Division of the Department of Natural Resources and Parks and King County. Examples include use-based charges for the Prosecuting Attorney's Office, risk management, and the financial management system, as well as FTE-based charges for building rent and utilities. When staff loan out from the operating fund to the capital fund, the capital fund reimburses the operating fund for FTE-related overhead charges.



## King County Flood Control District - FCD2018-09

### *2019 Annual Budget*

#### Attachment B

11/1/2018

Program	2017 Actuals	2018 Approved	2018 Revised	2019 Requested
Flood District Administration	516,829	792,853	792,853	886,638
Maintenance and Operation	9,365,407	11,333,238	11,515,838	12,839,055
Construction and Improvements	44,375,120	53,496,926	149,812,487	79,817,269
Bond Retirement and Interest	\$0	\$0	\$0	\$0
<b>Total</b>	54,257,356	65,623,017	162,121,177	93,542,962
Projected Capital Reserves - Cash Fund Balance <sup>1</sup>	71,449,775	56,604,639	64,898,272	56,881,663
Projected Capital Reserves - Budgetary Fund Balance <sup>2</sup>	(26,673,398)	(9,642,000)	(27,698,515)	(53,649,615)

<sup>1</sup> The cash fund balance assumes an expenditure rate of 36% of the capital budget in 2019, informed by prior year actuals.

<sup>2</sup> The budgetary fund balance assumes 100% expenditure of all budgeted amounts and is used to understand budgetary commitment.

## King County Flood Control District - FCD2018-09

### *2019 Annual Operating Budget*

#### **Attachment C**

11/1/2018

	2017 Actuals	2018 Approved	2018 Revised	2019 Requested
Annual Maintenance	\$1,820,167	3,386,766	3,386,766	\$3,327,451
Flood Hazards Plan, Grants, Outreach	\$301,737	718,898	901,498	\$675,380
Flood Hazard Studies, Maps, Technical Services	\$925,854	1,414,741	1,414,741	\$2,598,916
Flood Preparation, Flood Warning Center	\$655,367	1,417,463	1,417,463	\$1,127,992
Program Management, Supervision, Finance, Budget	\$1,044,858	1,283,543	1,283,543	\$1,727,017
Program Implementation	\$1,564,445	(106,434)	(106,434)	\$246,986
Overhead / Central Costs	\$3,052,979	3,218,261	3,218,261	\$3,135,313
<b>Total</b>	<b>\$9,365,407</b>	<b>\$11,333,238</b>	<b>\$11,515,838</b>	<b>\$12,839,055</b>

## King County Flood Control District - FCD2018-09

### 2019 Annual Capital Budget

#### Attachment D

11/1/2018

Basin	Acquisition	Design	Construction	Contingency	Total
Snoqualmie River Basin	\$720,000	\$3,382,045	\$5,593,612	\$0	\$9,695,656
Cedar River Basin	\$726,464	\$2,556,793	\$5,991,496	\$0	\$9,274,753
Green River Basin	\$5,740,640	\$13,919,541	\$24,778,381	\$0	\$44,438,561
White River Basin	\$180,000	\$1,862,600	\$350,000	\$0	\$2,392,600
Effectiveness Monitoring	\$0	(\$431,365)	\$0	\$0	(\$431,365)
Countywide Corridor Plan Implementation	\$0	(\$142,610)	\$0	\$0	(\$142,610)
Countywide Miscellaneous	\$0	\$0	\$500,000	\$350,000	\$850,000
Opportunity Fund	\$0	\$0	\$5,889,245	\$0	\$5,889,245
Grant Fund	\$0	\$0	\$3,166,261	\$0	\$3,166,261
WRIA Grant Funding	\$0	\$0	\$4,684,168	\$0	\$4,684,168
<b>Total</b>	<b>\$7,367,104</b>	<b>\$21,147,003</b>	<b>\$50,953,163</b>	<b>\$350,000</b>	<b>\$79,817,269</b>

# King County Flood Control District

## 2019 - 2024 Six-Year CIP

### Attachment E

11/1/2018

Name	2017 Actuals	2018 Approved	2018 Revised	2019 Proposed	2020	2021	2022	2023	2024	2019 - 2024 Total
Snoqualmie River Basin	\$7,730,622	\$11,966,181	35,067,392	9,695,656	9,139,603	11,456,561	15,378,783	6,137,727	10,411,002	62,219,332
Cedar River Basin	\$6,382,962	\$13,328,687	25,468,845	9,274,753	13,109,163	5,835,508	2,355,717	1,952,907	8,275,013	40,803,061
Green River Basin	\$5,076,317	\$12,571,465	\$46,253,479	44,438,561	43,774,710	22,398,431	11,570,362	12,143,318	8,646,752	142,972,134
White River Basin	\$11,422,778	\$1,079,358	3,414,621	2,392,600	1,121,412	8,179,077	6,569,902	1,569,556	-	19,832,547
Effectiveness Monitoring	\$275,622	\$1,076,734	1,402,897	(431,365)	594,987	398,884	588,509	636,581	519,813	2,307,409
Countywide Corridor Plan Imj	\$0	\$0	142,610	(142,610)	-	-	-	-	27,200,000	27,057,390
Countywide Miscellaneous	\$201,936	\$130,000	592,662	850,000	350,000	350,000	350,000	350,000	350,000	2,600,000
Subregional Opportunity Func	\$4,565,045	\$5,738,670	17,818,436	5,889,245	6,103,717	6,247,808	6,389,580	6,530,751	6,674,535	37,835,636
Flood Reduction Grants	\$4,622,698	\$3,085,306	7,477,379	3,166,261	3,281,568	3,359,037	3,435,258	3,511,156	3,588,460	20,341,740
WRIA Grants	\$4,097,140	\$4,520,525	12,174,166	4,684,168	4,853,735	5,029,440	5,211,506	5,400,162	5,595,648	30,774,659
Total	\$44,375,120	53,496,926	149,812,487	79,817,269	82,328,895	63,254,746	51,849,617	38,232,158	71,261,223	386,743,908

**King County Flood Control District****2019 Annual District Oversight Budget****Attachment F**

11/1/2018

	2018 Adopted	2018 Revised	2019 Proposed
Management & Support	\$281,855	\$281,855	\$290,310
Rent and Equipment	\$11,940	\$11,940	\$12,299
Legal Services	\$97,913	\$97,913	\$100,850
Accounting	\$100,650	\$100,650	\$103,669
State Auditor	\$20,157	\$20,157	\$20,762
Other Professional Services	\$175,481	\$175,481	\$250,745
Expenses	\$17,911	\$17,911	\$18,449
Insurance	\$86,946	\$86,946	\$89,554
<b>Total</b>	<b>\$792,853</b>	<b>\$792,853</b>	<b>\$886,638</b>

## King County Flood Control District

### 2019 Subregional Opportunity Fund Allocations

#### Attachment G

11/1/2018

Jurisdiction	Opportunity Fund Allocation	Project Name	Project Description
Algona	\$10,000	DEFERRING	
Auburn	\$94,695	DEFERRING	
Beaux Arts	\$10,000	CIP #16 - SE 27th Street	Feasibility study and schematic design tasks for new stormwater drainage system on WE 27th Street west of 104th Ave SE to Lake Washington
Bellevue	\$586,871	1. Factoria Blvd. Storm Conveyance Improvements 2. Meydenbauer Basin/NE 8th St. & 100th Ave NE Conveyance Improvement	1. Amendment adding budget to project that will reduce or eliminate flooding caused by insufficient drainage system capacity. 2. Amendment adding budget to project that will reduce the flooding frequency at this intersection.
Black Diamond	\$10,000	DEFERRING	
Bothell	\$87,928	DEFERRING	
Burien	\$68,739	Flow Control for Localized Flooding	Amendment adding budget to project that will construct solutions to local flooding.
Carnation	\$10,000	Storm Drainage Facilities Inventory and plan	Amendment adding budget to finish inventorying facilities and develop a maintenance & operations plan
Clyde Hill	\$26,617	NE 24th Street Overlay and Storm Drainage Improvements	Amendment adding budget to complete storm drainage improvement projects in the City
Covington	\$27,160	DEFERRING	
Des Moines	\$42,173	DEFERRING	
Duvall	\$12,398	DEFERRING	
Enumclaw	\$14,725	DEFERRING	
Federal Way	\$110,252	DEFERRING	
Hunts Point	\$11,425	2019 HP Lane Culvert - Maintenance/ Survey/ Design for Replacement	Clean and inspect 48-inch culvert per WDFW permit. Obtain survey of stream and design replacement culvert.
Issaquah	\$108,031	Lower Issaquah Creek Stream and Riparian Restoration	Design and permit stream habitat and floodplain improvements on Issaquah Creek.
Kenmore	\$45,945	DEFERRING	
Kent	\$186,242	Kent Airport Levee Setback	Property acquisition and preliminary design to support future habitat restoration and levee improvements to the Kent Airport Levee
King County	\$476,551	1. Fairwood Park 11 Pipe Replacement 2. Natural Drainage Flood Program	1. Amendment adding budget to project that will remove existing conveyance system of a stormwater facility and replace with a concrete box culvert that will provide fish passage. 2. Amendment adding budget that will be used to implement stormwater control improvements that address flooding problems.
Kirkland	\$265,397	132nd Square Retrofit Facility	Improve water quality and reduce stormwater flows in the Totem Lake and Juanita Creek basins by installing infiltration facility and water quality treatment.
Lake Forest Park	\$30,489	L60 Culvert Replacement	Replace a structurally deficient and partial fish barrier culvert on Lyon Creek at NE 178th St.
Maple Valley	\$38,205	DEFERRING	
Medina	\$41,074	Medina Park Stormwater Pond Improvements	Amendment adding budget to complete permitting, removing organic sediment and installing outlet control device in upper pond.
Mercer Island	\$139,281	Lincoln Landing Stormwater & Park Improvements	Amendment adding budget to complete construction of stormwater improvements
Milton	\$10,000	DEFERRING	
Newcastle	\$33,552	S-036 Pond 16 Outfall Repair	Install new manholes and replace existing catch basin and piping to improve drainage path and eliminate flooding at site.
Normandy Park	\$15,825	DEFERRING	
North Bend	\$13,868	DEFERRING	
Pacific	\$10,000	DEFERRING	
Redmond	\$201,381	Willows Road Culvert	Replace culvert with box culvert meeting standards for capacity and fish passage.
Renton	\$177,723	CMP Inspection Program	Inspect and evaluate the structural conditions of 31 miles of corrugated metal pipe and design repairs as needed.
Sammamish	\$171,155	DEFERRING	
SeaTac	\$54,343	South 180th St. Flood Reduction	Study alternatives and design a flood reduction facility to eliminate flooding at the east end of S. 180th St.
Seattle	\$2,513,702	Broadview 12th Ave NW Drainage & Flooding Improvements	Design and implement drainage improvements to address the highest priority areas of surface water flooding in the west branch of Mohlendorph basin.
Shoreline	\$116,505	DEFERRING	
Skykomish	\$10,000	DEFERRING	
Snoqualmie	\$29,488	DEFERRING	
Tukwila	\$58,419	Tukwila 205 Levee Certification - Phase 3	Amendment adding budget to project to continue engineering analysis, alternatives analysis and 15% design level.
Woodinville	\$36,490	DEFERRING	
Yarrow Point	\$12,526	2019 Operation & Maintenance	Amendment adding budget to reduce sediment deposits at public stormwater outfalls and control pollutants.
<b>Jurisdiction Totals</b>	<b>\$5,889,245</b>		

Deferrals \$876,882  
Projects \$5,012,363

King County Flood Control District

2019 - 2024 Six-Year CIP Project Allocations

Attachment H

11/1/2018

Capital Investment Strategy Project  
Grant/External Revenue Awarded  
Cost Share Contribution to Others  
New Project - 2018 Revised or 2019 Proposed  
Added by Advisory Committee

No.	Title	Basin	Type of project	2017 Inception to Date Expenditure	2018 Inception to Date Budget	2018 Available Budget	2019 Requested	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected	6-Year CIP Total	CIS Year 7-10	CIS 10+ Year	Project Life Total	Comments
1	WLFL0 MILLER RD RDVMTNT 2016 REPAIR	SF Skykomish	FCD Const	\$237,560	\$239,162	\$1,622	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$239,182	Damage to revetment. Very large rock removed from revetment, vertical banks and exposed subgrade in several locations totaling approximately 350 feet of damage. If not repaired, Miller River Road could be severely damaged. Constructed 2017.
2	WLFL0 SF SKYKOMISH REP LOSS MIT	SF Skykomish	FCD Acqui/Elev	\$746,937	\$745,404	(\$1,533)	\$0	\$0	\$0	\$0	\$0	\$119,405	\$119,405			\$964,809	This project will elevate or buyout individual structures in the South Fork Skykomish Basin to eliminate the risk of flooding or erosion damage during future flood events.
3	WLFL0 SKY RVR DR FLOOD STUDY	SF Skykomish	FCD Const	\$2,856	\$81,237	\$78,381	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$81,237	This project would improve infrastructure at the mouth of Maloney Creek and on the SF Skykomish River to reduce the frequency of flooding of homes and property within the Town of Skykomish.
4	WLFL0 SKYKOMISH LB DOWN 2016 REPAIR	SF Skykomish	FCD Const	\$85,402	\$150,000	\$64,599	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$150,000	Approximately 50-foot-long section of missing armor rock immediately downstream of the bridge. Further flooding may compromise or severely damage facility.
5	WLFL0 SKYKOMISH LB UP 2016 REPAIR	SF Skykomish	FCD Const	\$120,455	\$121,136	\$681	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$121,136	Three pockets of missing armor rock, 15, 10 and 75 feet wide and eroded topsoil from upper sections of levee. Further flooding may compromise or severely damage facility.
6	WLFL0 TIMBERLANE FLOOD BUYOUTS	SF Skykomish	FCD Acqui/Elev	\$1,888,350	\$2,809,874	\$921,524	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$2,809,874	This project will continue to acquire and remove homes along a stretch of the Skykomish River that are endangered by erosive forces as well as inundation in some places.
7	WLFL0 TIMBERLANE 2016 REPAIR	SF Skykomish	FCD Const	\$11,115	\$16,040	\$4,925	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$16,040	Project will lay back the privately-built rockery to reconstruct rock wall into stable revetment geometry. Will likely be implemented by the Strike Team.
8	WLFL0 TIMBERLANE 2016 REPAIR	SF Skykomish	FCD Const	\$0	\$0	\$0	\$600,000	\$0	\$0	\$0	\$0	\$0	\$600,000			\$600,000	Revetment is approximately 300 LF along left bank of South Fork Skykomish River. Unstable section of vertical stacked rock is approximately 150 LF (needs verification). Failure has occurred previously in this section of revetment.
9	WLFL1 428TH AVE SE BR FEASIBILITY	Upper Snoq	FCD Const	\$204,894	\$304,894	\$10,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$304,894	Reduce neighborhood isolation from flooding. Develop a set of alternatives for improvements to 428th Avenue SE, SE 92nd Street, and Reing Road to reduce the frequency of community isolation caused by floodwaters overtopping these roadways.
10	WLFL1 CIRCLE RVR RANCH RISK RED	Upper Snoq	FCD Const	\$65,125	\$428,505	\$363,380	\$111,660	\$237,980	\$257,550	\$3,830,574	\$0	\$0	\$4,237,744			\$4,686,249	This project will determine a preferred action to reduce long term risks from channel migration in the Circle River Ranch Neighborhood on the South Fork Snoqualmie River. Being conducted concurrent with South Fork Snoqualmie Corridor Plan.
11	WLFL1 MASON THIRSN EXT 2016 REPAIR	Upper Snoq	FCD Const	\$111	\$111	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$111	Large scour hole in bank at upstream end of Mason Thirsn Extension rock-faced levee. Significant settlement and displacement of face rock at upstream end of facility. Scour hole in bank threatens to end-run facility and damage adjacent private property.
12	WLFL1 MF SNO CORRIDOR IMP	Upper Snoq	FCD Const	\$954	\$1,100,000	\$1,099,046	\$1,099,046	\$1,099,046	\$1,162,249	\$1,196,980	\$511,733	\$0	\$2,670,662			\$3,070,562	Damage to levee face-rock compromises levee integrity and may lead to progressive failure, especially at upstream end.
13	WLFL1 MF SNO CORRIDOR PLAN	Upper Snoq	FCD Const	\$1,328,569	\$1,824,912	\$496,343	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,824,912	Placeholder for corridor plan implementation project(s).
14	WLFL1 NORMAN CREEK DS CULV	Upper Snoq	Agreement	\$0	\$724,000	\$724,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$724,000	Middle Fork Snoqualmie Corridor Planning, scheduled for completion in 2018.
15	WLFL1 NORMAN CREEK US 2024 CULV	Upper Snoq	Agreement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$750,000	\$750,000			\$750,000	Replace two existing rusted out 48" corrugated metal pipes on Norman Creek under 428th Ave SE with a new precast concrete box culvert. The new culvert will reduce the time it takes to drain the flood waters off of private property by increasing the capacity of the crossing. Currently when the North Fork Snoqualmie River overflows water backs up against 428th and impedes use of the roadway as the Norman Creek crossing is the normal outflow for this flood water once the North Fork has overtopped the adjacent levees.
16	WLFL1 NORTH FORK BRIDGE 2016 REPAIR	Upper Snoq	Agreement	\$171,125	\$385,000	\$213,875	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$385,000	Improve SE 92nd Street, east of 428th Street, and alleviate roadway flooding by installing a new box culvert.
17	WLFL1 NORTH FORK BRIDGE FEASIBILITY	Upper Snoq	Agreement	\$0	\$0	\$0	\$200,000	\$0	\$0	\$0	\$0	\$0	\$200,000			\$200,000	The North Fork Bridge was originally built in 1951 and is extremely vulnerable to scour as the channel thalweg migrates. In order to keep the bridge safe and reliable during a flood, it is important to protect the piers and abutments from scour failure.
18	WLFL1 RECCORD OFFICE 2016 REPAIR	Upper Snoq	FCD Const	\$0	\$350,000	\$350,000	\$637,835	\$0	\$0	\$0	\$0	\$0	\$637,835			\$637,835	Instate feasibility study to mitigate the risk of scour damage to the North Fork Bridge by retrofitting the existing structure with deep foundations or alternative risk mitigation strategies.
19	WLFL1 REIF RD 2016 REPAIR	Upper Snoq	FCD Const	\$32,187	\$33,484	\$1,297	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$33,484	Repair downstream 200 linear feet of facility which is missing face rock and toe rock. A significant scour hole has formed around a City of Snoqualmie stormwater outfall pipe at the downstream end of facility. Potential erosion impact to Park Ave SE in City of Snoqualmie, an area included in the City's planned "Riverwalk" park and trail project. Project implemented by City of Snoqualmie as part of Riverwalk project, construction is scheduled for 2019.
20	WLFL1 REIF RD LEVEE IMPROVEMENTS	Upper Snoq	FCD Const	\$0	\$0	\$0	\$0	\$265,438	\$318,421	\$385,937	\$457,218	\$0	\$1,427,014			\$1,427,014	Length 50-80 feet. Face rock has appeared to have settled 1-2 feet exposing core material above near upper part of levee face. Larger face rock missing in pockets upstream end of this damage site. Continued damage could compromise facility which provides flood protection for several residences landward of the facility.

No.	Title	Basin	Type of project	2017 Inception to Date Expenditure	2018 Inception to Date Budget	2018 Available Budget	2019 Requested	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected	6-Year CIP Total	CIS Year 7-10	CIS 10+ Year	Project Life Total	Comments
21	WLFL1 BENDIGO UPR SETBACK NORTH BE	Upper Snoq	Agreement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,250,000	\$4,250,000		\$4,250,000	Cost-share of \$8.4M levee setback project. The overtops at a 20-year or greater flood inundating undeveloped property, railway lines and roadways. Project would reconnect 25 acres of floodplain and construct a new levee that meets current engineering guidelines. City has submitted grant application for the remaining \$4.2 million
22	WLFL1 REING RD ELEVATIONS	Upper Snoq	Agreement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$50,000	\$50,000		\$50,000	Elevate low section of Reing Rd to alleviate flooding that blocks roadway
23	WLFL1 REING RD RVTMT 2016 REPAIR	Upper Snoq	FCD Const	\$28,042	\$600,000	\$771,958	\$400,000	\$264,166	\$0	\$0	\$0	\$0	\$664,166			\$1,464,166	Repair three primary damage sites just upstream and directly across from the South Fork Snoqualmie confluence totaling ~285 lineal feet. Construction is anticipated in 2020.
24	WLFL1 RIBARY CREEK	Upper Snoq	FCD Const	\$0	\$0	\$0	\$636,492	\$815,108	\$2,338,618	\$2,408,777	\$0	\$0	\$6,198,993			\$6,198,993	Address flooding from Ribary Creek at Bendigo Blvd in North Bend as the Snoqualmie levees prevent drainage to the river during high flows
25	WLFL1 SF C&S MED TERM	Upper Snoq	FCD Const	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$47,200,000		\$47,200,000	Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee
26	WLFL1 SF C&S LONG TERM	Upper Snoq	FCD Const	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$57,100,000		\$57,100,000	Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee
27	WLFL1 SF SNO CORR EARLY ACTION	Upper Snoq	FCD Const	\$1,420,044	\$1,433,887	\$13,840	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,433,887	Project identified by Board to alleviate potential flooding of I-90 in North Bend. Currently evaluating project alternatives, including levee setback and gravel removal.
28	WLFL1 SF SNO CORRIDOR PLAN	Upper Snoq	FCD Const	\$2,568,062	\$2,572,450	\$4,418	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$2,572,480	SF Snoqualmie Corridor planning process and development of capital investment strategy
29	WLFL1 SF SNO LEVEE REMEDIATION	Upper Snoq	FCD Const	\$0	\$295,673	\$295,673	\$92,327	\$374,430	\$727,790	\$657,297	\$0	\$0	\$1,851,853			\$2,147,520	Six levee deficiencies have been identified in this leveed segment. The project will design and reconstruct the impaired segment of levee in place.
30	WLFL1 SHAKE MILL LB 2016 REPAIR	Upper Snoq	FCD Const	\$15,659	\$600,000	\$584,342	\$2,950,000	\$0	\$0	\$0	\$0	\$0	\$2,950,000			\$3,550,000	Total breach of levee - erosion and lateral channel migration is ongoing. No immediately adjacent private property or infrastructure. Continued erosion could threaten 428th Ave embankment or bridge.
31	WLFL1 SHAKE MILL RB 2016 REPAIR	Upper Snoq	FCD Const	\$0	\$512,000	\$512,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$512,000	Between 428th St Bridge and Tate Creek, several locations on levee where toe-rock dislodged and corresponding minor bank erosion along 50-60 feet of river bank. Actual gaps range between 6-10 feet. Missing toe rock compromises levee integrity, increasing its vulnerability to further scour and potential failure. Failure of this facility could result in damage to a heavily used county road (428th Ave SE). Scheduled for 2018 construction.
32	WLFL1 SI VIEW RM4 2017 REPAIR	Upper Snoq	FCD Const	\$0	\$209,000	\$209,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$209,000	Repair approximately 25 lineal feet of the facility with missing toe rock and shallow scour scarp into bank that is approximately 1-2 feet deep. Si View Levee is a relatively short flood containment levee that protects 50+ homes in the Si View Park Neighborhood of North Bend from flooding. Project scheduled for 2018 construction.
33	WLFL1 SR202 SF BRIDGE LENGTHEN	Upper Snoq	FCD Const	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000			\$100,000	Placeholder funding to partner with WSDOT to expand bridge SR202 opening over South Fork Snoqualmie and Ribary Creek to improve conveyance and reduce upstream flood impacts. Supported by North Bend. Requires state or federal funding. Relative contribution of this project is being evaluated in the SF Snoqualmie Corridor Plan.
34	WLFL1 TATE CR SCOUR FEASIBILITY	Upper Snoq	Agreement	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000	\$0	\$150,000			\$150,000	Prepare a Concept Development Report (CDR) to analyze and select best span/alignment replacement bridge and road-raising option as the current bridge does not provide enough hydraulic opening due to the transport of sediments and water overtops the approaches during floods.
35	WLFL1 UPPER SNOQ 2015 FLOOD REPAIR	Upper Snoq	FCD Const	\$509,922	\$1,481,123	\$971,201	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,481,123	Flood damage repairs from January 2015 flood event. Locations include Mason-Thorson Ellis and Mason-Thorson Extension (Middle Fork Snoqualmie); North Park (North Fork Snoqualmie); and Record Office, Meadowbrook, and Railroad (Snoqualmie mainstem).
36	WLFL1 UPR SNO RES FLD MITIGTN	Upper Snoq	FCD AcquiElev	\$9,748,621	\$12,536,249	\$2,787,628	\$2,181,201	\$0,412,151	\$2,484,516	\$2,559,051	\$2,635,823	\$2,714,897	\$14,987,739			\$27,523,988	This project will continue to acquire or elevate flood-prone structures in the Upper Snoqualmie basin to reduce the risk of flood, erosion, and channel migration damage. Partnership with Cities of Snoqualmie and North Bend. As of May 2016 260 remain to be elevated or acquired. This amount assumes 10-12 home elevations per year.
37	WLFL1 USACE PL 84-99 SF SNO	Upper Snoq	FCD Const	\$0	\$150,223	\$150,223	\$183,154	\$352,868	\$363,454	\$0	\$0	\$0	\$899,476			\$1,049,699	Ensure eleven South Fork Snoqualmie River levees meet the standards of the US Army Corps of Engineers PL 84-99 program in order to receive future assistance from the Corps in the event of flood damage to the levees.
38	WLFL2 DUTCHMAN RD REPAIR	Lower Snoq	FCD Const	\$0	\$548,593	\$548,593	\$200,000	\$0	\$0	\$0	\$0	\$0	\$200,000			\$748,593	Repair approximately 200 feet of revetment. Dutchman Road in this location provides the sole access to residences and business on the west side of the Snoqualmie Valley downstream of Duvall. Continued erosion of the revetment could result in erosion of the road (West Snoqualmie Valley Road NE) which would severely limit access to the downstream property owners during or following a flood event.
39	WLFL2 L SNO SCOUR REPAIR 2017	Lower Snoq	Agreement	\$9,244	\$150,000	\$140,756	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$150,000	The foundation of the main-span pier is exposed and is vulnerable to destabilization during a flood. Add scour mitigation measures to protect footing. Bridge crosses the Snoqualmie River at Duvall and is the city's primary route.
40	WLFL2 FARM PAD PROGRAM	Lower Snoq	FCD Const	\$759,345	\$875,617	\$116,272	\$104,186	\$115,214	\$118,670	\$122,230	\$125,897	\$129,674	\$715,871			\$1,591,468	This project provides technical and cost-sharing assistance to agricultural landowners in the Lower Snoqualmie floodplain to help them better withstand the impacts of flooding. Specific project actions include farm pads and elevation or flood proofing of agricultural structures.
41	WLFL2 L SNO REP LOSS MITGION	Lower Snoq	FCD AcquiElev	\$1,269,231	\$1,695,671	\$426,440	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,695,671	Funding as possible local match for FEMA grants to elevate or acquire at-risk structures.
42	WLFL2 L SNO/ALDAIR CORRDOR PLN	Lower Snoq	FCD Const	\$5,860,655	\$7,365,814	\$1,505,169	\$0	\$636,540	\$0	\$0	\$0	\$0	\$636,540			\$8,002,354	Cost-shared contribution to multiple levee setbacks and high priority flood risk reduction acquisitions in the Fall City reach of the Lower Snoqualmie. Projects reduce flood and erosion risk to revelements, roads, and landowners. FCD expenditure leverages habitat restoration funding from other sources.



No.	Title	Basin	Type of project	2017 Inception to Date Expenditure	2018 Inception to Date Budget	2018 Available Budget	2019 Requested	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected	6-Year CIP Total	CIS Year 7-10	CIS 10+ Year	Project Life Total	Comments
43	WFL2 LWR SNO RIVER TID MITGTN	Lower Snoq	FCD Acqui/Elev	\$2,151,873	\$3,278,317	\$1,126,444	\$285,292	\$530,450	\$545,363	\$562,754	\$579,637	\$597,026	\$3,081,522			\$6,359,839	This project provides technical and cost-sharing assistance to residential and agricultural landowners in the Lower Snoqualmie floodplain to help them better withstand the impacts of flooding. Specific project actions include farm pads, elevations of homes, and elevation or flood proofing of agricultural structures.
44	WFL2 SE 19TH WAY REVELTMENT	Lower Snoq	FCD Const	\$595,008	\$1,916,294	\$1,321,266	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,916,294	Rebuild revetment to protect road access to high value agricultural operations and lands. Construction scheduled for 2018.
45	WFL2 SE DAVID POWELL RD DOWNSTRE	Lower Snoq	FCD Const	\$588,184	\$1,036,456		\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,036,456	Reduce neighborhood isolation from flooding. Prevent slope failure of sole access roadway that would isolate 150 homes.
46	WFL2 L SNO 2019 BANK REPAIR	Lower Snoq	Agreement	\$133,968	\$1,100,000	\$956,032	\$1,100,000	\$0	\$0	\$0	\$0	\$0	\$1,100,000			\$2,200,000	The river is scouring the road away and David Powell Road is collapsing into the river. This project will repair an existing failing revetment and extend MSE wall to prevent undercutting of the riverbank and roadway.
47	WFL2 SE FISH HATCHERY RD	Lower Snoq	FCD Const	\$451,604	\$527,905	\$76,101	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$527,905	Reduce neighborhood isolation from flooding. Prevent slope failure of sole access roadway that would isolate 20-30 homes.
48	WFL2 SINNEMA OUALE 2011 REPR	Lower Snoq	FCD Const	\$12,432,743	\$12,608,516	\$75,773	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$12,608,516	Large capital project to repair 1000 linear feet of the Sinnema Quale Upper revetment. Protects SR 203, two regional fiber optic lines, and Snoqualmie Valley Trail. Construction to be completed in 2017; project anticipated to be closed out in 2018.
49	WFL2 SNOQUALMIE VALLEY FEAS	Lower Snoq	Agreement	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000	\$0	\$0	\$500,000			\$500,000	Regional flooding in the Snoqualmie Valley cuts off access to eastern cities. Determine which major roadway(s) that cross the Snoqualmie Valley would be the most cost effective to improve in the valley with chronic flood issues impacting over 25,000 daily drivers.
50	WFL2 STOSSEL BR 2016 REPAIR	Lower Snoq	FCD Const	\$0	\$850,000	\$850,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$850,000	This project will implement a repair to approximately 250 feet of damage identified in late March 2018 to a section of the Stossel Bridge Right Bank Revetment on the Snoqualmie River, downstream of the City of Carnation. The repair will be implemented by October 2018.
51	WFL2 STOSSEL LONG TERM REPAIR	Lower Snoq	FCD Const	\$0	\$0	\$0	\$200,000	\$170,000	\$500,000	\$2,500,000	\$0	\$0	\$3,370,000			\$3,370,000	Placemaker costs for long-term facility improvement project to prevent erosion undermining 910th Ave NE.
52	WFL2 TOLT PIPELINE PROTECTION	Lower Snoq	FCD Const	\$2,917,831	\$10,736,868	\$7,819,237	\$41,200	\$0	\$0	\$0	\$0	\$0	\$41,200			\$10,778,068	This project will repair approximately 800 linear feet of the Winkelman (formerly RM 13.5) revetment. Erosion along the right bank of the Snoqualmie River channel threatens to undermine the Seattle Public Utilities water supply line at this location south of Duvall. Construction scheduled for 2018.
53	WFL2 DUVALL SLOUGH 2017 IMPRV	Lower Snoq	Agreement	\$15,078	\$400,000	\$384,922	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$400,000	These two bridges are subject to having the roadway approach fill wash out during a flood. Excavate approaches and rebuild approaches to prevent losing approaches during flooding. A similar repair was done on Woodinville-Duvall Bridge No. 1136D.
54	WFL3 FREW LEVEE 2016 REPAIR	Tolt	FCD Const	\$95,450	\$360,360	\$293,910	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$360,360	Face rock displaced along approximately 50 feet of levee face. Some core material appears to have been lost, resulting in an over steepened bank relative to upstream and downstream undamaged levee sections. Top of damaged face approximately 6 feet from edge of gravel trail. Continued erosion will cut off popular riverside trail. Potential impact to highway if facility breaches during a major flood. Scheduled for 2018 construction.
55	WFL3 GIRL SCOUT LEVEE 2016 REPAIR	Tolt	FCD Const	\$745	\$311,000	\$310,255	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$311,000	Repair approximately 20 feet of face and toe rock dislodged from Girl Scout Camp levee revetment below side channel confluence with mainstem. Missing face and toe rock compromises levee integrity, increasing its vulnerability to further scour and potential failure. Scheduled for 2018 construction.
56	WFL3 HOLBERG 2019 REPAIR	Tolt	FCD Const	\$750	\$0	\$0	\$500,000	\$0	\$0	\$0	\$0	\$0	\$500,000			\$500,000	Facility failure has consequences for property owners immediately landward of facility. Potential for high flows and erosive damage to residences and property.
57	WFL3 HOLBERG FEASIBILITY	Tolt	FCD Const	\$750	\$200,000	\$189,250	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$200,000	Feasibility study to determine the nature and extent of levee improvements necessary to remove four homes in unincorporated King County from the regulatory Channel Migration Zone as mapped in the March 2017 Draft Tolt River Channel Migration study.
58	WFL3 LOWER FREW LEVEE SETBACK	Tolt	FCD Const	\$93,007	\$1,411,000	\$1,317,993	\$192,226	\$1,411,000	\$1,470,384	\$0	\$0	\$0	\$1,949,048			\$3,360,048	Capital Investment Strategy: Design, based on level of service analysis, the highest priority levee setback for flood risk reduction. Phase 2 construction estimated in CIS at \$14.5M-\$16.7M.
59	WFL3 LOWER TOLT RIVER ACQUISITION	Tolt	FCD Acqui/Elev	\$520,475	\$744,475	\$215,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$744,475	Acquisition between the Swiftwater development and the river for the future setback of the Upper Frew Levee.
60	WFL3 REMLINGER LEVEE 2017 REPAIR	Tolt	FCD Const	\$0	\$311,000	\$311,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$311,000	Damage is approximately 50 linear feet of the facility with missing toe rock and undermined face rock near the Snoqualmie Valley Trail. The damage is at the downstream end of Remlinger facility and a breach or continued erosion would increase flooding impacts on portions of the Remlinger property. Scheduled for 2018 construction.
61	WFL3 RIO VISTA PROPERTY ACQ	Tolt	FCD Acqui/Elev	\$0	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000			\$1,000,000	Capital Investment Strategy: Acquire 2 at-risk homes from willing sellers; acquire remaining 14 homes as funds become available.
62	WFL3 SAN SOULI NEIGHBOOD R/OUT	Tolt	FCD Acqui/Elev	\$4,198,839	\$5,553,353	\$1,354,717	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$5,553,353	This project will buyout remaining properties and remove all homes and privately-constructed rubble levee at upstream end of the community access road, ultimately completing project initiated 20 years ago by others. Approximately 20 homes removed from high hazard areas within and just upstream and downstream of San Souli neighborhood.
63	WFL3 SAN SOULI REACH IMPRVMENTS	Tolt	FCD Const	\$0	\$100,000	\$0	\$60,000	\$190,000	\$700,000	\$700,000	\$750,000	\$0	\$2,400,000			\$2,500,000	Capital Investment Strategy: Construct Tolt Road NE road elevation in one location. Remove illegal revetment and roads in San Souli neighborhood.
64	WFL3 SEDIMENT MGMT FEAS	Tolt	FCD Const	\$0	\$209,805	\$209,805	\$193,200	\$0	\$0	\$0	\$0	\$0	\$193,200			\$402,805	Capital Investment Strategy: Conduct sediment management feasibility study and develop a plan. Update and include upper watershed sediment production estimates.
65	WFL3 SR 203 BR IMPRVMENTS FEAS	Tolt	FCD Const	\$0	\$205,743	\$205,743	\$190,157	\$0	\$0	\$0	\$0	\$0	\$190,157			\$395,000	Capital Investment Strategy: Initiate study (with potential future design and construct) to add bridge span(s), raise the highway and relocate King County Parks parking area.
66	WFL3 TOLT 2015 FLOOD REPAIRS	Tolt	FCD Const	\$46,909	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$0	Flood damage repairs from January 2015 flood event. Locations include Frew, Upper Frew, Remlinger, and Girl Scout Camp.

No.	Title	Basin	Type of project	2017 Inception to Date Expenditure	2018 Inception to Date Budget	2018 Available Budget	2019 Requested	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected	6-Year CIP Total	CIS Year 7-10	CIS 10+ Year	Project Life Total	Comments
67	WLFL3 TOLT CIS MED TERM	Toll	FCD Const	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$88,500,000		\$88,500,000	Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee.
68	WLFL3 TOLT CIS LONG TERM	Toll	FCD Const	\$0	\$1,153,657	\$1,153,657	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$28,800,000	\$29,953,657	Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee.
69	WLFL3 TOLT CORRIDOR PLAN	Toll	FCD Const	\$1,134,500	\$1,153,657	\$19,157	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,153,657	The corridor plan for the lower 8 miles of the Toll River will develop a prioritized implementation strategy for near-term and long-term floodplain management actions. Scheduled for adoption in 2017.
70	WLFL3 TOLT R LEVEE L O S ANALYSIS	Toll	FCD Const	\$75,484	\$553,250	\$474,766	\$160,234	\$0	\$0	\$0	\$0	\$0	\$160,234			\$713,484	Capital Investment Strategy. Conduct a detailed hydraulic analysis to optimize the elevation of new levees to maximize flood risk reduction benefits.
71	WLFL3 TOLT R MILE 1.1 SETBACK	Toll	FCD Acqui/Elev	\$4,119,308	\$4,806,106	\$786,801	\$200,000	\$0	\$0	\$0	\$0	\$0	\$200,000			\$5,106,106	Acquisition funding for high risk properties in levee setback project area. Project priorities will be determined by the Board through adoption of the Toll Corridor Plan.
72	WLFL3 TOLT R NATURAL AREA ACQ	Toll	FCD Acqui/Elev	\$1,671,614	\$2,986,067	\$1,313,453	\$520,000	\$100,000	\$0	\$0	\$0	\$0	\$620,000			\$3,611,157	Capital investment strategy: acquire at-risk homes from willing sellers.
73	WLFL3 TOLT R RD ELEVATION FEASIBILITY	Toll	FCD Const	\$45,001	\$250,000	\$204,999	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$250,000	Reduce neighborhood isolation from flooding. Evaluate feasibility of elevating sections of Toll River Road.
74	WLFL3 TOLT R RD NE IMPROVEMENTS	Toll	FCD Const	\$0	\$0	\$0	\$0	\$53,045	\$109,273	\$236,357	\$927,419	\$1,200,000	\$2,526,094			\$2,526,094	Capital Investment Strategy. Initiate design for elevation of one road location to reduce or eliminate isolation. Implement additional road elevations as funds become available.
75	WLFL3 UPPER FREW LEVEE SETBACK	Toll	FCD Const	\$0	\$0	\$0	\$0	\$106,080	\$109,273	\$168,826	\$0	\$0	\$384,189			\$384,189	Capital Investment Strategy. Initiate the levee setback design in order to apply for grant funding. Levee setback to increase sediment storage and floodwater conveyance, protect adjacent development, reduce damage to trail bridge.
76	WLFL4 ALPINE MANOR NEIGHBORHOOD BR	Raging	FCD Acqui/Elev	\$1,753,400	\$1,853,460	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,853,460	Acquisition of single-family homes and future acquisition of mobile home park at risk of channel migration along the Raging River in the Alpine Manor neighborhood.
77	WLFL4 RAGING MOUTH TO BR 2017 REPAIR	Raging	FCD Const	\$0	\$500,000	\$500,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$500,000	Repair 150 lineal feet of discontinuous damage and missing toe rock. The levee protects the landward area from flooding and serves as the road embankment for Dike Rd, an access road to the Fall City boat launch. The damaged levee section is immediately adjacent to the Twin Rivers golf course barn, which would experience greater flooding if the levee were breached. Scheduled for 2018 construction.
78	WLFL4 RAGING SCOUR REPAIR 2017	Raging	Agreement	\$25,067	\$80,000	\$54,933	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$80,000	This bridge has a history of scour damage. One of the arch foundations is exposed. Repair scour mitigation measures to protect the footing. It serves only one house but is a designated King County Landmark.
79	Snoqualmie-South Fork Skykomish Subtotal			\$40,215,969	\$98,236,198	\$35,019,385	\$9,495,859	\$9,139,400	\$11,456,561	\$15,379,783	\$8,137,727	\$10,411,002	\$42,219,332	\$156,700,000	\$69,600,000	\$340,056,530	
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82	WLFL5 ALLEN LK OUTLET IMPRVMT	Sammamish	Agreement	\$0	\$0	\$0	\$0	\$400,000	\$1,400,000	\$1,000,000	\$0	\$0	\$2,800,000			\$2,800,000	To address chronic flooding on this sole access roadway with approximately 200 properties, look at upstream and downstream retention/detention options, study road-raising options; prepare Concept Development Report, analyze and select best options.
83	WLFL5 SAMMAMISH R BANK REPAIRS	Sammamish	FCD Const	\$304,373	\$1,152,413	\$848,040	\$2,652	\$0	\$0	\$0	\$0	\$0	\$2,652			\$1,155,065	Repair and stabilize two short sections of the right riverbank near I-405 to protect the regional Sammamish River trail. Work is being coordinated with Parks. Full permitting will be required as work will be below OHW, plus an updated easement will be required from WSDOT and FHWA due to I-405 proximity. Construction is targeted for summer 2016 and will likely require detouring trail users to adjacent roads.
84	WLFL5 WILLOWMOOR FLOODWAY REST	Sammamish	FCD Const	\$1,454,905	\$2,536,268	\$1,081,363	\$1,684,709	\$2,011,665	\$0	\$0	\$0	\$0	\$3,696,374			\$6,232,642	Willowmoor Floodplain Restoration Project seeks to reduce the frequency and duration of high lake levels in Lake Sammamish while maintaining downstream Sammamish River flood control performance and enhancing habitat. The project will reconfigure the Sammamish transition zone to ensure ongoing flow conveyance downstream flood control, potential extreme lake level reduction, habitat conditions improvement, and reduction of maintenance impacts and costs. In June 2016 the Executive Committee approved a motion (2016-04) authorizing 30% design of the split channel alternative including various design elements such as variable depth pools, cold water supplementation, and other elements itemized in the motion. Project costs will be updated when the 30% design is complete in December 2018.
85	WLFL6 ISSAQUAH TRIB FEAS	Lk Wash Tribs	Agreement	\$0	\$150,000	\$150,000	\$200,000	\$0	\$0	\$0	\$0	\$0	\$200,000			\$350,000	Feasibility analysis to identify potential solutions to bank erosion and backwatering problems at bridge.
86	WLFL6 LOWER COAL CRIK PH I	Lk Wash Tribs	Agreement	\$1,060,959	\$9,553,751	\$7,572,792	\$907,841	\$2,385,377	\$114,800	\$90,500	\$63,600	\$1,472,881	\$5,035,169			\$14,568,950	Increase conveyance capacity at the five box culvert crossings. Disconnect local storm drainage outfall from Coal Creek and redirect them to Lake Washington. Implemented by City of Bellevue. Expenditure forecast to be updated based on current project schedule.
87	WLFL6 MAY VALLEY DRAINAGE IMPRVMT	Lk Wash Tribs	FCD Const	\$0	\$80,000	\$80,000	\$300,000	\$0	\$0	\$0	\$0	\$0	\$300,000			\$380,000	As recommended in the May Creek Basin Plan, two sediment trap facilities will be evaluated to limit sediment loading from two May Creek tributaries. Both projects would require land acquisition, whether easement or property purchase.
88	WLFL7 CDR PRE-CONST STRTGC ACQ	Cedar	FCD Acqui/Elev	\$2,573,767	\$4,330,332	\$1,756,565	\$0	\$0	\$0	\$0	\$0	\$1,200,000	\$1,200,000			\$5,530,532	This project will acquire strategic real estate upon which several large Flood Control District capital projects are dependent, namely the levee setback projects at the Herzman, Jan Rd, Rhode, Getchman, and Rulledge-Johnson Lower Jones Rd levee segments. Acquisition funding related to these projects is now included in the individual capital projects.
89	WLFL7 CEDAR LEVEE SETBACK FEAS (Cedar)	Cedar	FCD Const	\$1,853,797	\$1,087,587	\$133,790	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,087,587	This six-year flood risk reduction capital investment strategy will cover the Cedar River valley from Landsburg Road SE (River Mile 22) to Lake Washington. Plan was completed in 2016 with expected close out 2018 or 2019.
90	WLFL7 CEDAR CIS MED TERM	Cedar	FCD Acqui/Elev	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$22,000,000			\$22,000,000	Elevate or acquire highest risk and repetitive loss properties from willing sellers. Elevate or purchase approximately 2 homes each year.
91	WLFL7 CEDAR CIS LONG TERM	Cedar	FCD Acqui/Elev	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0		\$35,400,000	\$35,400,000	Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee.

No.	Title	Basin	Type of project	2017 Incapable to Date Expenditure	2018 Inception to Date Budget	2018 Available Budget	2019 Requested	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected	6-Year CIP Total	CIS Year 7-10	CIS 10+ Year	Project Life Total	Comments
92	WLFL7 CEDAR RES FLOOD MITIGATION	Cedar	FCD Acqui/Elev	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$800,000	\$800,000			\$800,000	Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee.
93	WLFL7 CEDAR R REP LOSS MITGATN	Cedar	FCD Acqui/Elev	\$3,182,200	\$3,788,422	\$606,222	(\$606,222)	\$0	\$0	\$0	\$0	\$0	(\$606,222)			\$3,182,200	Acquire frequently-flooded homes. Placeholder funding until District adopts acquisition policy.
94	WLFL7 CRT SITE A BANK	Cedar	FCD Const	\$0	\$0	\$0	\$890,000	\$0	\$0	\$0	\$0	\$0	\$890,000			\$890,000	Capital Investment Strategy: Repair eroded section of left bank with bioengineered revegetment to stabilize toe of bank and to prevent large scale bank failure.
95	WLFL7 CEDAR RVR GRAVEL REMOVAL	Cedar	Agreement	\$9,638,127	\$11,102,886	\$1,464,758	\$962,613	\$104,880	\$445,879	\$111,267	\$114,808	\$0	\$1,739,044			\$12,841,929	The project will ensure the minimum required 100-year flood conveyance capacity along the lower 1.25 miles of the Cedar River. Project is a required maintenance action for the Army Corps of Engineers 205 Flood Control Project. Project costs were updated in March 2016.
96	WLFL7 CEDAR R DWNSTREAM 2014 IMPV	Cedar	FCD Const	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$100,000			\$100,000	Improve Cedar Grove Road near Byers Road SE and alleviate roadway flooding by raising the road through the application of a thick layer of overlay.
97	WLFL7 CITY OF RENTON LEVEE CERTIFICA	Cedar	Agreement		\$750,000	\$750,000	\$3,000,000	\$1,255,000	\$0	\$0	\$0	\$0	\$4,260,000			\$5,000,000	Placeholder for Renton levee certification projects. Renton will begin engineering in 2018, construction start in 2019. Budget needs may change in future pending engineering and FEMA acceptance of approach.
98	WLFL7 ELLIOTT BR LEVEE SETBACK	Cedar	FCD Const	\$2,168,073	\$2,168,073	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$2,168,073	Purpose of the project is to setback levees on both sides of the river below the Elliott/154th St Bridge. Based on the Cedar Capital Investment Strategy this project is no longer scheduled for the near-term 5-year timeframe.
99	WLFL7 FBD CORRIDOR IMPLEMENTATION	Cedar	FCD Acqui/Elev	\$3,001,014	\$6,511,784	\$3,510,770	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$5,511,784	Washington State Floodplains by Design grant from the Department of Ecology. The project will buyout residents in high risk areas, increase the capacity for flood storage, and provide corresponding environmental improvements. The project has cost-share funding from the City of Seattle. Also funds design elements of the Herzman project and Riverband.
100	WLFL7 HERZMAN LEVEE SETBACK	Cedar	FCD Const	\$0	\$944,872	\$944,872	\$321,604	\$3,989,652	\$0	\$0	\$0	\$0	\$4,291,256			\$5,236,128	Capital Investment Strategy: Setback levees, excavate side-channel to reduce pressure on relevelment; reconstruct, reinforce and/or extend relevelment; acquire up to 5 properties.
101	WLFL7 JAN ROAD NEIGHBORHOOD	Cedar	FCD Const	\$0	\$995,326	\$995,326	\$489,405	\$626,956	\$3,659,210	\$452,157	\$1,532,360	\$25,147	\$6,785,235			\$7,780,561	Capital Investment Strategy: Suite of solutions to be determined as part of feasibility study. Includes raise road, partial removal of Jan Road levee, construction of side channel, and mitigation of at-risk properties. Construction phased for mitigation in 2021 and other improvements in 2023.
102	WLFL7 LOWER CEDAR FEASIBILITY STUDY	Cedar	FCD Const	\$0	\$200,000	\$200,000	\$200,000	\$100,000	\$0	\$0	\$0	\$0	\$300,000			\$500,000	Capital Investment Strategy: Conduct feasibility study of Lower Cedar reach in City of Renton to 1) quantify economic damage potential 2) determine infrastructure modifications to improve flood resiliency and sediment storage potential, and 3) conduct cost-benefit analysis.
103	WLFL7 LOWER JONES ROAD NEIGHBORHO	Cedar	FCD Const	\$0	\$2,966,466	\$2,966,466	\$0	\$630,633	\$215,819	\$701,793	\$242,142	\$4,676,985	\$6,667,372			\$9,665,838	Capital Investment Strategy: Raise in place or setback Jones Road, excavate and stabilize right bank to increase conveyance capacity, reinforce one relevelment, remove portion of another relevelment; acquire 8 at risk properties. Construction delayed to 2024 to accommodate Jan Rd construction in 2021 or 2022.
104	WLFL7 MAPLEWOOD FEASIBILITY STUDY	Cedar	FCD Const	\$56,732	\$440,000	\$363,268	\$23,151	\$0	\$0	\$0	\$0	\$0	\$23,151			\$463,151	Capital Investment Strategy: Conduct site specific landslide risk assessment study; conduct a feasibility study to evaluate opportunities to modify the Erickson Levee. Pending results of landslide hazard analysis, FCD will consider options for a project.
105	WLFL7 ISSAQUAH MAY VALLEY IMPV	Cedar	Agreement	\$0	\$100,000	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$100,000	Contribution towards the preliminary design of the May Valley and Issaquah Hobart Intersection Improvements.
106	WLFL7 RIVERBEND MHP ACQ	Cedar	Habitat Cost Share	\$4,044,614	\$5,357,042	\$1,312,428	(\$126,000)	\$0	\$0	\$0	\$0	\$0	(\$126,000)			\$5,231,042	This project represents the Flood District contribution to a larger project that relocates mobile home park tenants and initiates preliminary engineering design for potential levee setback / realignment to reduce flood heights, velocities and channel migration risk in this reach. Disappropriate remainder after FCD portion of scope is complete.
107	WLFL7 MADSEN CR CULVERT 2017	Cedar	Agreement	\$124,609	\$400,000	\$275,395	\$700,000	\$1,430,000	\$0	\$0	\$0	\$0	\$2,130,000			\$2,530,000	To address a culvert failure affecting approximately 10 properties, prepare Concept Development Report to analyze and select best culvert replacement and road-raising option, and analyze upstream and downstream retention/detention impacts.
108	WLFL7 SR 160 FEASIBILITY STUDY	Cedar	FCD Const	\$17,211	\$321,800	\$304,589	\$325,000	\$0	\$0	\$0	\$0	\$0	\$325,000			\$646,800	Conduct feasibility study in coordination with WSDOT to evaluate flood risk reduction opportunities, such as elevating SR 169, upgrading the local drainage infrastructure, and / or installation of back flow prevention gates. Funding added in 2019 pending FCD decision to move forward with preliminary design.
109	Cedar-Sammamish Subtotal			\$30,400,079	\$66,980,221	\$25,406,844	\$6,274,753	\$18,109,163	\$5,835,508	\$2,355,712	\$1,652,607	\$6,278,013	\$40,603,091	\$22,000,700	\$36,400,700	\$154,072,502	
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112	WLFL8 BRISCOE LEVEE SETBACK	Green	Agreement	\$20,476,585	\$23,330,271	\$2,851,706	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$23,330,271	Floodwall construction at four locations completed by the City of Kent. Final expenditures for the remainder of 2017 will include reimbursement for property acquisition and riparian plantings. The revised 2017 financial plan includes revenue of \$4.1 million for the sale of the Rivers Edge Business Park. Per FCD 2016-20 Section 5, this revenue makes expenditure authority available for the Lower Russell Levee Setback project. The Briscoe project will be closed out once the District's ILA with Kent expires in 2018.
113	WLFL8 BRPS BLACK R PUMP STATION	Green	FCD Const	\$5,157,701	\$5,162,299	\$4,599	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$5,162,299	Expenditures here include sediment removal, fuel system upgrades, life-cycle efficiency analysis to inform future upgrades, and priority items from recently completed needs assessment (2015). New line items established below to account for discrete project elements.
114	WLFL8 BRPS CONTROL BLDG RPLCMT	Green	FCD Const	\$0	\$630,366	\$630,366	\$278,530	\$1,276,092	\$7,577,624	\$25,867	\$0	\$0	\$0,168,133			\$9,682,601	This project will design and build the second phase of renovations to the Black River pump station. Major components include replacement of the control building, replacement of the trash rake system, and replacement of the screen spray system.
115	WLFL8 BRPS FISH PASS IMPROVMENTS	Green	FCD Const		\$0	\$0	\$0	\$10,000	\$631,751	\$2,241,456	\$6,316,655	\$3,546,752	\$12,946,614			\$12,946,614	This project will design and build the fourth phase of renovations to the Black River pump station, revising and replacing the obsolete fish passage systems.

No.	Title	Status	Type of project	2017 Inception to Date Expenditure	2018 Inception to Date Budget	2018 Available Budget	2019 Requested	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected	6-Year CIP Total	CIS Year 7-10	CIS 10+ Year	Project Life Total	Comments
116	WLFL8 BRPS HIGH-USE ENGINES	Green	FCD Const	\$44,098	\$474,079	\$429,981	\$1,970,371	\$0	\$0	\$0	\$0	\$0	\$1,970,371			\$2,444,450	This project will design and build the first phase of renovations to the Black River pump station, replacing the three smaller pump engines which run much more frequently than the other, larger pump engines.
117	WLFL8 BRPS SUPPORT SYS UPGRADES	Green	FCD Const		\$0	\$0	\$0	\$175,261	\$822,168	\$779,584	\$26,563	\$0	\$1,803,676			\$1,803,676	This project will design and build the third phase of renovations to the Black River pump station, replacing support systems such as engine control panels, cooling systems, valves and hoses.
118	WLFL8 DESMONE USACE 2015	Green	Agreement	\$884,058	\$887,552	\$2,594	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$687,552	Cost-share flood damage repair from March 2014 high flows with Corps of Engineers. Constructed in 2016.
119	WLFL8 DYKSTRA USACE 2015	Green	Agreement	\$640,200	\$600,841	(\$39,359)	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$600,841	Cost-share flood damage repair from March 2014 high flows with Corps of Engineers. Constructed in 2016.
120	WLFL8 GALLIOWAY STRA FEASIBILITY	Green	FCD Const	\$0	\$0	\$0	\$330,000	\$0	\$0	\$0	\$0	\$0	\$330,000			\$330,000	Conduct a feasibility study to raise the levee providing 100-year flood protection plus 3 feet of freeboard.
121	WLFL8 GALLIOWAY STRA 2020 REPAIR	Green	FCD Const	\$0	\$0	\$0	\$200,000	\$1,000,000	\$0	\$0	\$0	\$0	\$1,200,000			\$1,200,000	Complete Phase 1 repair per a request from the City of Auburn. Elevate 3500 feet levee reach to meet FEMA levee certification requirements.
122	WLFL8 GREEN PRE-CONST ACQ	Green	FCD Acqui/Elev	\$368,856	\$5,368,856	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$30,000,000			\$35,368,856	This project will acquire strategic real estate upon which future large Flood Control District capital projects are dependent, thereby reducing risks to construction schedules for those projects.
123	WLFL8 GREEN R PL84-99 MITIGATN	Green	FCD Const	\$4,055,790	\$5,660,541	\$1,604,745	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$5,660,541	This project will result in actions to mitigate environmental damage from tree cutting during 2008-9 (as required by permitting agencies) to maintain eligibility for US Army Corps of Engineers PL84-99 program. The current mitigation effort is the Teufel project scheduled for 2018 construction.
124	WLFL8 HSB BREA SETBACK KENT	Green	Agreement	\$29,811	\$4,277,874	\$4,247,863	\$481,279	\$2,405,032	\$953,513	\$23,435	\$0	\$0	\$3,663,259			\$8,140,933	New project to implement interim SWIF adopted by Board of Supervisors. This project will reconstruct the Horseshoe Bend Levee at the Breda reach (RM 24.46-24.72) to a more stable configuration in order to reduce flood risk to the surrounding areas. The project will also raise levee crest elevations to contain the 500-year (0.2% annual chance) flood. This segment of the levee has the lowest factor of safety rating of the Horseshoe Bend levee.
125	WLFL8 HSB MCCOY REALIGNMENT	Green	FCD Const	\$0	\$400,000	\$400,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$400,000	New project to implement interim SWIF adopted by Board of Supervisors. This PL 84-99 levee segment contains a 'Minimally acceptable' rating by the USACE due to a slope deficiency at RM 24.3 (over steepened slopes from 1.3 to 1.7H:1V for 500 feet). The City of Kent constructed a secondary containment levee in this reach, set back from the river's edge, which is currently not part of the federal levee. The only remaining structure between the two levees is a Puget Sound Energy facility. The Horseshoe Bend Levee Certification Report calculated Factor of Safety (FOS) values for rapid drawdown of 1.08 and 1.55 at about RM 24.3 and RM 24.4, respectively. River bed scour in this reach between 1986 and 2011 is 2.7 feet at RM 24.24. Funding of \$400,000 covers the cost of major modification to the federal levee so that the City of Kent's secondary containment levee can be incorporated into the federal levee project.
126	WLFL8 HSB NURSING HOME SETBACK	Green	FCD Const	\$0	\$0	\$0	\$0	\$0	\$100,000	\$2,000,000	\$500,000	\$0	\$2,600,000			\$2,600,000	New project to implement interim SWIF adopted by Board of Supervisors. The Nursing Home levee is over-steepened and does not meet current engineering standards. The economic consequence of levee failure or overtopping to the lower Green River valley is extensive and could cause tens of millions of dollars in damage. This capital project area contains a 'Minimally Acceptable' deficiency by the US Army Corps of Engineers at RM 25.5 (over steepened slopes from 1.25 to 1.7H:1V for 225 feet). The Horseshoe Bend Levee Certification Report calculated a Factor of Safety (FOS) value for rapid drawdown of 1.01 at RM 25.57 (Section F). This is barely above the minimum FOS (1.0) from the US Army Corps of Engineers manual.
127	WLFL8 INTERIM SWIF IMPLEMENTATION	Green	FCD Const	\$2,650	\$70,000	\$67,350	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$70,000	Coordination and planning activities to implement recommendations of interim SWIF. Maintenance work associated with the interim SWIF is included in the operating budget.
128	WLFL8 LOWER RUSSELL ACQ KENT	Green	Agreement	\$0	\$1,023,550	\$1,023,550	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,023,550	Acquisitions by the City of Kent for the Lower Russell levee setback project.
129	WLFL8 LWR GRN R CORRIDOR PLANNING	Green	FCD Const	\$129,701	\$1,743,548	\$1,613,548	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$1,743,548	Lower Green River Corridor Planning and Environmental Impact Statement.
130	WLFL8 LWR RUSSELL LEVEE SETBACK	Green	FCD Const	\$10,792,961	\$20,855,938	\$9,762,977	\$14,108,596	\$18,141,389	\$83,375	\$0	\$0	\$0	\$32,331,390			\$62,887,298	Remove and replace the existing flood containment system of levee and reverts along the right (east) bank of the Green River between river mile 17.85 (S 212th St) and river mile 19.25 (S 231st Way) in the City of Kent to provide long-term flood protection and improve riparian and aquatic habitat. Increased expenditure authority to match interim SWIF adopted by Board of Supervisors.
131	WLFL8 MILWAUKEE LEVEE #2-KENT	Green	Agreement	\$108,711	\$8,500,000	\$8,391,289	\$10,900,000	\$0	\$0	\$0	\$0	\$0	\$10,900,000			\$19,400,000	Prepare an analysis and study of design and construction alternatives to provide flood protection, scour protection, enable levee certification and secure necessary land rights. Current ILA with Kent for this phase is \$3.65 million, the ILA assumes that the total project cost is \$8.5 million.
132	WLFL8 OLD JEFFS FARM REVETMENT	Green	FCD Const	\$171,983	\$2,026,802	\$1,854,819	\$0	\$1,973,198	\$0	\$0	\$0	\$0	\$1,973,198			\$4,000,000	This project will conduct a feasibility analysis of channel migration hazards from river mile 21.1 to 21.7. Alternative selection is pending; alternative 1 is assumed as a placeholder.
133	WLFL8 GREEN SCOUR REPAIR 2017	Green	Agreement	\$47,524	\$150,000	\$102,476	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$150,000	This project will address scour damage to the bridge, which is on the primary through route of the Green River Valley Rd. The bridge is also a King County landmark.
134	WLFL8 GREEN R IMPROVEMENT 2024	Green	Agreement	\$47,524	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$100,000			\$100,000	Improve SE Green Valley Road near SE Auburn Black Diamond Road and alleviate roadway flooding by raising the road through the application of a thick layer of overlay.
135	WLFL8 PORTER LEVEE	Green	Habitat Cost Share	\$300,000	\$720,000	\$420,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$720,000	Contribute the cost of a repair (\$720,000) to a \$7 million levee setback project. By relocating the levee, flood risks as well as future repair costs for the Flood Control District are reduced. In response to community concerns, the project also includes funding to elevate the road so that the school bus serving this neighborhood does not have to drive in the oncoming lane to avoid floodwaters.
136	WLFL8 REDDINGTON REACH SETBACK	Green	FCD Const	\$18,970,959	\$18,571,227	\$268	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$18,571,227	Present expenditures will continue into 2017, discontinue anticipated in 2018.

No	Title	Basin	Type of project	2017 Inception to Date Expenditure	2018 Inception to Date Budget	2018 Available Budget	2019 Requested	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected	8-Year CIP Total	CIS Year 7-10	CIS 10+ Year	Project Life Total	Comments
137	WFL8 RUSSELL RD UPPER KENT	Green	Agreement	\$6,061,985	\$6,082,173	\$20,188	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$6,082,173	Project is to improve the levee by providing a minimum of 3 feet of freeboard above the predicted 500-year flood event and improve slope stability. These segments of the Russell Road Upper Levee have over-sloped slopes and therefore lack adequate structural stability to provide adequate safety.
138	WFL8 S 180TH ST BRIDGE FLOODWALL EX	Green	Agreement	\$0	\$65,378	\$65,378	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$65,378	The project will increase the height of a flood wall to provide approximately 30" of additional flood protection.
139	WFL8 SIGNATURE POINTE REVETMENT	Green	FCD Const	\$0	\$300,000	\$300,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$300,000	Signature Pointe is a revetment/levee on the Green River between river mile 22.06 and 23.18 that does not meet the FEMA requirements for accreditation due to inadequate freeboard. This project includes development of a project charter and an alternatives analysis to select an alternative to achieve increased flood protection, embankment and toe protection in a manner that can be certified and accredited.
140	WFL8 TITUS PIT RVTMNT 2018 REPAIR	Green	Agreement	\$0	\$250,000	\$250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$250,000	Repair of the recent damage to the Titus Pit RB revetment is needed to prevent a potential revetment failure and Green River road collapse. The revetment protects an adjacent King County arterial road and utilities (such as water, natural gas, telecommunication and power) under the road.
141	WFL8 TUK-205 RATOLO FLOODWALL	Green	FCD Const	\$0	\$0	\$0	\$0	\$0	\$0	\$1,500,000	\$300,000	\$0	\$1,800,000			\$1,800,000	New project to implement interim SWIF adopted by Board of Supervisors. This project will construct a 0.15 mile floodwall and sloped embankment to protect adjacent businesses from flooding. The floodwall alignment (including embankment slope, factors of safety, and necessary real estate) will be finalized during the project design phase.
142	WFL8 TUK-205 USACE GACO-SEGALÉ	Green	FCD Const	\$382,418	\$5,860,633	\$6,478,215	\$8,671,785	\$0	\$0	\$0	\$0	\$0	\$8,671,785			\$15,732,418	US Army Corps led project to replace 3500 ft. of Tukwila 205 levee in-place replacement to bring up to 500-year level of protection per the adopted interim SWIF. The USACE will share remaining 2/3 of the cost; this allocation to the local share of 1/3 of total cost. Requires cooperation agreement.
143	WFL8 SOUTH PARK PUMPSTATION	Seattle	Agreement	\$1,786,262	\$1,786,262	\$0	\$0	\$4,718,738	\$0	\$0	\$0	\$0	\$4,718,738			\$6,505,000	Cost-share construction of pump station to reduce flooding in industrial area. Allocation of funds by year may be revised based on updated project schedule. Implemented by the City of Seattle. Expenditure forecast to be updated based on current project schedule.
144	WFL8 PUGET WAY CULVERT	Seattle	Agreement			\$0	\$1,800,000	\$0	\$0	\$0	\$0	\$0	\$1,800,000			\$1,800,000	This project will replace an aging and undersized creek culvert under Puget Way SW in Seattle.
145	WFL8 S PARK DRAINAGE IMPROVEMENTS	Seattle	Agreement	\$219,074	\$1,000,000	\$780,926	\$0	\$9,075,000	\$7,030,000	\$0	\$0	\$0	\$16,105,000			\$17,105,000	The South Park Drainage Conveyance Improvements Project will install a formal conveyance system in the streets, to get flows to the pump station. The conveyance improvements will work in conjunction with the Pump Station.
146	WFL8 TUKWILA RVTMNT 2019 REPAIR	Green	FCD Const	\$0	\$0	\$0	\$500,000	\$0	\$0	\$0	\$0	\$0	\$500,000			\$500,000	Erosion and slumping of Tukwila Trail revetment caused by the recent Green River flood resulted in approximately 200 feet of damage to the revetment.
147	Green-Duwamish Subtotal			\$68,201,737	\$114,307,663	\$40,163,460	\$44,438,661	\$45,774,710	\$22,366,431	\$11,570,342	\$13,343,319	\$6,640,782	\$142,973,134	\$0	\$0	\$257,965,827	
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150	WFL9 ANDERSON PARK ACQUISITION	White	FCD Acqui/Elev	\$0	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0	\$0	\$100,000			\$100,000	Acquire portion of Anderson park from City of Enumclaw.
151	WFL9 BUTTE AVE FLOOD MITIGATION	White	Agreement	\$0	\$470,000	\$470,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0			\$470,000	This project will reduce flood risks to residences and businesses in the Cities of Pacific and Allyn by addressing backwatering and drainage problems in Government Canal from high river flows. The project will design and permit a stormwater pump station which will significantly reduce flood risks to approximately five hundred homes and businesses. The completed project will also reduce long-term road closures that have occurred in the past due to flooding.
151	WFL9 COUNTRYLINE TO A STREET	White	FCD Const	\$23,360,884	\$24,004,419	\$623,533	\$0	\$65,776	\$0	\$0	\$0	\$0	\$65,776			\$24,070,195	Reduces flood elevations that impact residential neighborhoods in the City of Pacific (200 homes, with \$52 million of assessed and \$13 million content value), improves sediment storage and enhances habitat.
152	WFL9 RIGHT BANK LEVEE SETBACK	White	FCD Const	\$11,009,469	\$13,230,557	\$2,221,088	\$1,612,600	\$655,636	\$5,079,077	\$6,419,902	\$69,556	\$0	\$16,836,771			\$30,067,328	Construct a new levee setback in the City of Pacific, extending from BNSF railroad bridge embankment to endpoint at Butte Ave. by White River Estates neighborhood.
153	WFL9 SLIPPERY CREEK AGO	White	FCD Acqui/Elev	\$0	\$100,000	\$0	\$60,000	\$0	\$0	\$0	\$0	\$0	\$60,000			\$160,000	Acquire vacant parcel on Slippery Creek along Chinook Pass Hwy 410.
154	WFL9 STREAM #10.0048 US CULVERT	White	Agreement	\$0	\$00,000	\$00,000	\$100,000	\$400,000	\$100,000	\$0	\$0	\$0	\$600,000			\$800,000	This project will analyze culvert replacement and road-raising options and implement the preferred option.
155	WFL9 STREAM #10.0048 DS CULVERT	White	Agreement	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000	\$1,500,000	\$0	\$1,650,000			\$1,650,000	These two bridges are subject to having the roadway approach fill wash out during a flood. Excavate approaches and rebuild approaches to prevent flooding approaches during flooding.
156	WFL9 STUCK R DR 2019 REPAIR	White	FCD Acqui/Elev	\$0	\$0	\$0	\$500,000	\$0	\$0	\$0	\$0	\$0	\$500,000			\$500,000	Loss of facing rock along 130' of the lower half of the embankment. Some of the gravel fill under the rock has eroded as well, leaving a near-vertical face supporting the rock remaining on the upper slope. The rock that slid down is currently providing scour protection at the toe.
157	White Subtotal			\$34,360,355	\$37,894,675	\$3,404,021	\$2,282,000	\$1,121,412	\$6,179,077	\$6,589,802	\$1,569,856	\$0	\$19,801,547	\$0	\$0	\$57,727,523	
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160	WFLX CORRIDOR PLAN DESIGN/CONST PLAN	Countywide	FCD Const	\$0	\$142,810	\$142,810	(\$142,810)	\$0	\$0	\$0	\$0	\$27,200,000	\$27,057,300			\$27,200,000	Placeholder for corridor plan implementation project(s).
161	Countywide Corridor Plan Imp Subtotal			\$0	\$142,810	\$142,810	(\$142,810)	\$0	\$0	\$0	\$0	\$27,200,000	\$27,057,300	\$0	\$0	\$27,200,000	
162																	
163																	
164	WFLG FLOOD REDUCTION GRANTS	Countywide	Grant	\$7,208,617	\$14,685,996	\$7,477,379	\$3,169,261	\$3,281,568	\$3,359,037	\$3,435,258	\$3,511,156	\$3,588,460	\$20,341,740			\$35,027,736	Competitive grant program for flood reduction projects. Increases as a proportion of total FCD tax revenue.
165	WFLG WRIA GRANTS	Countywide	Grant	\$15,445,614	\$27,619,780	\$12,174,166	\$4,684,168	\$4,853,735	\$5,029,440	\$5,211,508	\$5,400,162	\$5,595,648	\$30,774,659			\$58,394,439	Cooperative Watershed Management Grant Program, priorities recommended by watershed groups. Increases based on assumed inflation rate.
166	WFLM EFFECTIVENESS MONITORING	Countywide	FCD Const	\$1,802,356	\$3,295,253	\$1,492,897	(\$421,365)	\$594,367	\$398,884	\$588,609	\$636,581	\$519,813	\$2,307,406			\$5,602,662	Evaluation of capital projects to determine effectiveness and identify project design improvements.
167	WFLG SUBREGION OPPORTUNITY FUND	Countywide	Grant	\$31,603,504	\$49,421,941	\$17,818,436	\$5,689,245	\$6,103,717	\$6,247,608	\$6,389,680	\$6,530,751	\$6,674,638	\$37,835,638			\$87,257,577	Allocation to all King County jurisdictions for flooding, water quality, or watershed management projects. Increases as a proportion of total FCD tax revenue.

No.	Title	Business	Type of project	2017 Incapital to Date Expenditures	2016 Incapital to Date Budget	2018 Available Budget	2019 Requested	2020 Projected	2021 Projected	2022 Projected	2023 Projected	2024 Projected	5-Year CIP Total	CIS Year 7-10	CIS 10+ Year	Project Life Total	Comments
168	WALFLX CONST. MATERIALS STOCKPILE	Countywide	FCD Const	\$0	\$0	\$0	\$500,000	\$100,000	\$100,000	\$0	\$0	\$0	\$500,000			\$500,000	Central charges related to the FCD's capital fund
169	WALFLX CENTRAL CHARGES	Countywide	FCD Const	\$704,514	\$511,430	\$206,079	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$500,000			\$1,511,430	Central charges related to the FCD's capital fund
170	WALFLX FLOOD EMERGENCY CONTINGENCY	Countywide	FCD Const	\$415,234	\$600,917	\$345,683	\$150,000	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000	\$1,500,000			\$2,300,917	Contingency for emergency response actions during a flood event
171	Countywide Subtotal			\$97,209,942	\$96,739,385	\$30,467,549	\$14,152,399	\$19,184,007	\$19,385,199	\$15,078,820	\$16,438,952	\$18,728,466	\$69,859,444	\$0	\$0	\$190,594,824	
172																	
173	Grand Total			\$129,558,297	\$129,228,077	\$149,864,798	\$19,317,266	\$23,938,895	\$25,254,748	\$19,848,917	\$23,222,145	\$27,281,223	\$195,745,000	\$187,200,000	\$121,200,000	\$1,097,910,916	