1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

King County

# KING COUNTY

## Signature Report

## FCD Resolution

**Proposed No.** FCD2019-13.2 **Sponsors**

A RESOLUTION relating to the operations and finances of the District, adopting the 2020 budget and authorizing improvements.

WHEREAS, pursuant to RCW 86.15.140, the King County Flood Control Zone District (District) held a public hearing on the proposed 2020 budget of the District on October 30, 2019, and

WHEREAS, the board of supervisors (Board) desires to adopt the District's 2020 budget, and

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

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

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

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

WHEREAS, the Board desires to approve improvements in the District's 2020 budget that are not in the District Comprehensive Plan, or that have been modified by the District's 2020 budget, in accordance with RCW 85.15.110, and

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

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

SECTION 1. The Board hereby adopts the 2020 Budget for the District, as set forth in Attachments A ("Work Program"), B ("2020 Annual Budget"), C ("2020 Annual Operating Budget"), D ("2020 Annual Capital Budget"), E ("2020 - 2025 Six-Year CIP"), F ("2020 Annual District Oversight Budget"), G ("2020 Subregional Opportunity Fund Allocations") and H ("2020-2025 Six-Year CIP Project Allocations"); provided that King County, or other jurisdictions contracted to implement projects, work shall submit predesign reports for capital projects to the District executive director, and shall seek approval from the executive director of project charters. Furthermore, King County shall provide to the District executive committee thirty percent design project reports for authorization to proceed with sixty percent design.

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

Comprehensive Plan, that are included in the District Comprehensive Plan but have been modified by Attachments C, D and H to this resolution, or that are not included in the District Comprehensive Plan but are identified in Attachments C, D and H to this resolution (collectively, the "Improvements"). The District Comprehensive Plan includes the streams or water courses upon which the Improvements will be enlarged, extended, acquired or constructed. The Board determines that the Improvements generally contribute to the objectives of the District Comprehensive Plan and will be of benefit to the county as a whole.

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

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

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

SECTION 6. The Board approves a one-time funding increase of the Flood Reduction Grant Program to fulfill unmet flood risk reduction needs in 2019 partial grant recipients and new additional applicants, if any.

SECTION 7. The Board directs King County water and land resources division to develop recommendations for the maintenance and operations of flood risk reduction facilities in the Sammamish River Basin, including sediment management at the mouth of the Sammamish River.

SECTION 8. The Board directs King County water and land resources division to develop recommendations for the replacement of high-value culverts for flood risk reduction and fish passage by April 30, 2020. This report shall incorporate the information required in King County Council Motion 15328 and shall prioritize high value culverts in incorporated and unincorporated King County.

SECTION 9. The Board directs King County water and land resources division to develop recommendations for the maintenance and operations of the weir on Lake Sawyer.

SECTION 10. The Board directs King County roads services division to develop recommendations related to flooding concerns in Skyway.

SECTION 11. The Board directs King County water and land resources division to convert eight temporary term limited positions to full time positions to District project delivery goals.

SECTION 12. The Board directs King County water and land resources division to prioritize the Middle Fork Snoqualmie Sediment Management study and the following capital projects for implementation in the 2020-2025 capital improvement program as a condition for using District funds to pay for five new capital project staff positions: Middle Fork Snoqualmie PL 84-99 study, Tukwila - 205 Gunter Floodwall and other capital projects ready for implementation.

SECTION 13. The Board directs King County water and land resources division to provide a monthly report to the District executive director on the status of recruitment and hiring of all vacant and newly authorized positions funded by the District. If any of the five newly created capital project staff positions remain unfilled by August 1, 2020,

the District may consider reallocating the Operating Budget to achieve project delivery goals through alternative contracting methods.

SECTION 14. The Board directs King County water and land resources division to provide a monthly report to the District executive director on the status of inspections of all facilities monitored and maintained by King County as a service provider to the District.

SECTION 15. The Board directs King County water and land resources division to provide a quarterly report to the District executive director on the status of progress on items in the Work Program as set forth in Attachment A.

SECTION 16. The Board directs King County water and land resources division to provide a report on all facilities monitored and maintained by King County as a service provider to the District that have been altered as the result of a capital project by any entity other than the rivers and floodplain management section of King County water and land resources division by March 31, 2020.

SECTION 17. The Board directs the District executive director to provide a report on how the District can contribute to the repairs of the Hiram M. Chittenden Ballard Locks operated by the United States Army Corps of Engineers by March 31, 2020.

SECTION 18. Section 3.6 of the interlocal agreement between the District and King County provides that King County shall notify the District executive director in writing if the county needs to modify or reprioritize capital projects. King County's notifications to the District executive director should include information regarding variations within project budgets of more than twenty percent in the "acquisition",

"design", "construction", "contingency" and "total" expenditure categories, shown on Attachment D to this resolution.

FCD Resolution was introduced on and passed as amended by the King County Flood Control District on 11/6/2019, by the following vote:

Yes: 8 - Mr. von Reichbauer, Ms. Lambert, Mr. Dunn, Mr. McDermott, Mr. Dembowski, Mr. Upthegrove, Ms. Kohl-Welles and Ms. Balducci
Excused: 1 - Mr. Gossett

KING COUNTY FLOOD CONTROL ZONE DISTRICT
KING COUNTY, WASHINGTON

Reagan Dunn, Chair

ATTEST:

Melani Pedroza, Clerk of the District

**Attachments:** A. King County Flood Control District 2019 Work Program dated October 30, 2019, B. 2020 Annual Budget dated November 6, 2019, C. Annual Operating Budget dated November 6, 2019, D. 2020 Annual Capital Budget dated November 6, 2019, E. 2020-2025 Six-Year CIP dated November 6, 2019, F. 2020 Annual District Oversight Budget dated November 6, 2019, G. 2019 Subregional Opportunity Fund Allocations dated November 6, 2019, H. 2020-2025 Six-Year CIP Project Allocations dated November 6, 2019

Attachment A
2020 Budget Work Program
10/30/2019

Attachment A

**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)

**2020 Priorities:**

<u>Management & Budget</u>

- 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 policy framework for monitoring and maintaining flood protection facilities
- 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 and Gunter portions of the Tukwila 205 levee
- Update facility inventory and real estate records
- Address property title issues

Reports

- Monthly hiring report
- Monthly inventory maintenance/inspection report

Planning and Studies

- Middle Fork Snoqualmie Planning Process
- Lower Green River Planning Process
- 2020 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 breech
- South Fork Skykomish Flood Study
- Greenwater and Lower Snoqualmie CMZs
- Evaluation of future flooding scenarios in partnership with the University of Washington
- Small stream flood studies
- Lake Saywer Weir analysis

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 Sates 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 o
            Pre-project baseline information o
            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

## *2020 Annual Budget*

### Attachment B

11/6/2019

| Program | 2018 Actuals | 2019 Approved | 2019 Revised | 2020 Requested |
|---|---|---|---|---|
| Flood District Administration | 774,817 | 886,638 | 886,638 | 913,238 |
| Maintenance and Operation | 8,909,077 | 12,839,055 | 13,370,743 | 13,464,210 |
| Construction and Improvements | 44,595,640 | 79,817,269 | 151,567,324 | 87,904,383 |
| Bond Retirement and Interest | $0 | $0 | $0 | $0 |
| **Total** | 54,279,534 | 93,542,962 | 165,824,705 | 102,281,831 |
| Projected Capital Reserves - Cash Fund Balance [1] | 81,912,806 | 56,841,663 | 89,876,187 | 75,637,085 |
| Projected Capital Reserves - Budgetary Fund Balance [2] | (24,627,592) | (53,649,615) | (19,491,612) | (56,987,951) |

[1] The cash fund balance assumes an expenditure rate of 28% of the capital budget in 2019, informed by prior year actuals.

[2] The budgetary fund balance assumes 100% expenditure of all budgeted amounts and is used to understand budgetary commitment.

# King County Flood Control District

## *2020 Annual Operating Budget*

### Attachment C

11/6/2019

| | 2018 Actuals | 2019 Approved | 2019 Revised | 2020 Requested |
|---|---|---|---|---|
| Annual Maintenance | $1,926,807 | 3,327,451 | 3,327,451 | $3,305,056 |
| Flood Hazards Plan, Grants, Outreach | $781,155 | 675,380 | 1,080,380 | $675,380 |
| Flood Hazard Studies, Maps, Technical Services | $882,230 | 2,598,916 | 2,686,497 | $3,383,416 |
| Flood Preparation, Flood Warning Center | $336,560 | 1,127,992 | 1,167,099 | $991,042 |
| Program Management, Supervision, Finance, Budget | $1,242,993 | 1,727,017 | 1,727,017 | $1,727,017 |
| Program Implementation | $822,928 | 246,986 | 246,986 | $246,986 |
| Overhead / Central Costs | $2,916,405 | 3,135,313 | 3,135,313 | $3,135,313 |
| **Total** | **$8,909,077** | **$12,839,055** | **$13,370,743** | **$13,464,210** |

# King County Flood Control District

## *2020 Annual Capital Budget*

### Attachment D

11/6/2019

| Basin | Acquisition | Design | Construction | Contingency | Total |
|---|---|---|---|---|---|
| Snoqualmie River Basin | $414,037 | $937,450 | $6,569,994 | $811,531 | $8,733,012 |
| Cedar River Basin | $673,453 | $2,386,440 | $4,448,137 | $0 | $7,508,030 |
| Green River Basin | $1,215,689 | $8,821,647 | $37,953,674 | $5,289,501 | $53,280,510 |
| White River Basin | $29,000 | $829,747 | $312,462 | $0 | $1,171,209 |
| Effectiveness Monitoring | $0 | $330,232 | $0 | $0 | $330,232 |
| Countywide Corridor Plan Implementation | $0 | $0 | $0 | $0 | $0 |
| Countywide Miscellaneous | $0 | $0 | $0 | $100,000 | $100,000 |
| Opportunity Fund | $0 | $0 | $6,091,017 | $0 | $6,091,017 |
| Grant Fund | $0 | $0 | $5,880,201 | $0 | $5,880,201 |
| WRIA Grant Funding | $0 | $0 | $4,810,172 | $0 | $4,810,172 |
| **Total** | **$2,332,179** | **$13,305,516** | **$66,065,657** | **$6,201,032** | **$87,904,383** |

## King County Flood Control District

### *2020 - 2025 Six-Year CIP*

**Attachment E**

11/6/2019

| Name | 2018 Actuals | 2019 Approved | 2019 Revised | 2020 Requested | 2021 | 2022 | 2023 | 2024 | 2025 | 2020 - 2025 Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Snoqualmie River Basin | $15,985,846 | $9,695,656 | 20,021,652 | 8,733,012 | 10,963,585 | 18,763,277 | 13,555,407 | 27,126,341 | 27,324,575 | 106,466,196 |
| Cedar River Basin | $8,609,669 | $9,274,753 | 22,015,617 | 7,508,030 | 15,892,435 | 4,463,445 | 4,940,367 | 3,541,720 | 3,932,358 | 40,278,355 |
| Green River Basin | $6,759,173 | $44,438,561 | $64,046,578 | 53,280,510 | 85,805,463 | 76,741,492 | 10,806,094 | 8,565,231 | 5,092,073 | 240,290,863 |
| White River Basin | $1,604,341 | $2,392,600 | 2,635,621 | 1,171,209 | 1,259,966 | 8,672,705 | 8,508,038 | 136,895 | 190,000 | 19,938,813 |
| Effectiveness Monitoring | $508,737 | ($431,365) | 543,400 | 330,232 | 890,956 | 834,056 | 892,524 | 804,751 | 585,512 | 4,338,030 |
| Countywide Corridor Plan Im | $0 | ($142,610) | - | - | - | - | - | - | - | - |
| Countywide Miscellaneous | $137,597 | $850,000 | 1,394,971 | 100,000 | 392,592 | 396,870 | 401,276 | 405,815 | 410,489 | 2,107,042 |
| Subregional Opportunity Fun | $3,643,555 | $5,889,245 | 20,394,282 | 6,091,017 | 6,255,428 | 6,414,885 | 6,568,817 | 6,720,084 | 6,869,230 | 38,919,461 |
| Flood Reduction Grants | $2,082,721 | $3,166,261 | 8,859,103 | 5,880,201 | 3,363,133 | 3,448,863 | 3,531,622 | 3,612,948 | 3,693,134 | 23,529,901 |
| WRIA Grants | $5,263,999 | $4,684,168 | 11,656,100 | 4,810,172 | 4,939,566 | 5,072,440 | 5,208,889 | 5,349,008 | 5,492,896 | 30,872,971 |
| Total | $44,595,640 | 79,817,269 | 151,567,324 | 87,904,383 | 129,763,124 | 124,808,033 | 54,413,034 | 56,262,793 | 53,590,266 | 506,741,633 |

## King County Flood Control District

# 2020 Annual District Oversight Budget

### Attachment F

11/6/2019

| | 2019 Adopted | 2019 Revised | 2020 Proposed |
|---|---|---|---|
| Management & Support | $290,310 | $290,310 | $299,020 |
| Rent and Equipment | $12,299 | $12,299 | $12,668 |
| Legal Services | $100,850 | $100,850 | $103,875 |
| Accounting | $103,669 | $103,669 | $106,779 |
| State Auditor | $20,762 | $20,762 | $21,385 |
| Other Professional Services | $250,745 | $250,745 | $258,268 |
| Expenses | $18,449 | $18,449 | $19,002 |
| Insurance | $89,554 | $89,554 | $92,241 |
| **Total** | **$886,638** | **$886,638** | **$913,238** |

## King County Flood Control District

### *2019 Subregional Opportunity Fund Allocations*

**Attachment G**

11/6/2019

| Jurisdiction | Opportunity Fund Allocation | Project Name | Project Description |
|---|---|---|---|
| Algona | $10,000 | DEFERRING | |
| Auburn | $96,211 | DEFERRING | |
| Beaux Arts | $10,000 | 2020 Operation & Maintenance | Annual clean and camera of existing stormwater system |
| Bellevue | $609,377 | Meydenbauer Basin/NE 8th St. & 100th Ave NE Conveyance Improvement | Amendment adding budget to project that will reduce the flooding frequency at this intersection. |
| Black Diamond | $10,000 | SR 169 & North Commercial Stormwater Treatment Facility | Design, permit and construct a vault to treat stormwater along SR 169. |
| Bothell | $61,647 | DEFERRING | |
| Burien | $73,032 | DEFERRING | |
| Carnation | $10,000 | DEFERRING | |
| Clyde Hill | $28,225 | Clyde Hill 2020 Storm Sewer Improvement Program | Construct a flow splitter and add storm diversion route to address steep slope issue at 87th Ave. At 94th Ave, line aging stormwater pipes. |
| Covington | $27,085 | DEFERRING | |
| Des Moines | $43,468 | DEFERRING | |
| Duvall | $12,508 | DEFERRING | |
| Enumclaw | $15,182 | Battersby Avenue Culvert Replacement | Amendment adding budget to project that will replace culverts to reduce flooding frequency of road and downtown area. |
| Federal Way | $112,149 | DEFERRING | |
| Hunts Point | $11,790 | 2020 Operation & Maintenance | Remove sediment and debris; early detection of potential storm system problems. |
| Issaquah | $110,714 | DEFERRING | |
| Kenmore | $47,378 | DEFERRING | |
| Kent | $189,789 | Lake Fenwick Aerator Upgrade | Amendment to add budget to project that will improve water quality of lake. |
| King County | $489,970 | Natural Drainage Flood Program | Amendment adding budget that will be used to implement stormwater control improvements that address flooding problems. |
| Kirkland | $278,134 | Spinney Homestead Regional Facility | Design a regional facility in the Forbes Creek Basin |
| Lake Forest Park | $30,834 | L60 Culvert Replacement | Amendment to add budget to replace a structurally deficient and partial fish barrier culvert on Lyon Creek at NE 178th St. |
| Maple Valley | $39,340 | Jenkins Creek Witte Road Culvert Replacement | Replace existing undersized culvert under Witte Road with concrete box culvert. |
| Medina | $42,664 | Medina Park Stormwater Pond Improvements | Amendment adding budget to complete permitting, removing organic sediment, and installing outlet control device in upper pond. |
| Mercer Island | $141,177 | Lincoln Landing Stormwater & Park Improvements Design | Amendment adding budget to design stormwater, shoreline and park improvements at a street end park. |
| Milton | $10,000 | DEFERRING | |
| Newcastle | $34,624 | S-038 Storm Conveyance Rehabilitation Program | Repair or replace degrading or failing stormwater infrastructure. |
| Normandy Park | $16,273 | DEFERRING | |
| North Bend | $13,709 | DEFERRING | |
| Pacific | $10,000 | DEFERRING | |
| Redmond | $208,317 | Willows Road Culverts | Amendment to add budget to replace undersized culvert with larger, fish passable box culvert. |
| Renton | $182,600 | NE 16th and Jefferson Avenue NE Stormwater Green Connections | Improve conveyance and water quality along NE 16th St. and Jefferson Ave NE - install pipe, catch basins, bioretention facilities. |
| Sammamish | $177,027 | DEFERRING | |
| SeaTac | $56,668 | DEFERRING | |
| Seattle | $2,614,258 | Broadview 12th Ave NW Drainage & Flooding Improvements | Amendment to add budget to design and implement drainage improvements to address the highest priority areas of surface water flooding in the west branch of Mohlendorph basin. |
| Shoreline | $114,074 | Pump Station 26 Replacement | Amendment to add budget and extend timeframe to replace aging pump station |
| Skykomish | $10,000 | DEFERRING | |
| Snoqualmie | $30,847 | DEFERRING | |
| Tukwila | $60,871 | 1. Riverton Creek Flapgate Removal 2. East Marginal Way S. Stormwater Outfalls | 1. Rehabilitate habitat within Riverton Creek and improve its connection to Duwamish River 2. Install treatment facilities to reconstruct a conveyance system and improve water quality in Duwamish River |
| Woodinville | $37,940 | DEFERRING | |
| Yarrow Point | $13,135 | 2020 NE 42nd St. Stormwater | Upsize stormwater pipe to 24-inches |
| **Jurisdiction Totals** | **$6,091,017** | | |

| | |
|---|---|
| Deferrals | $966,656 |
| Projects | $5,124,361 |

**King County Flood Control District**
**Chair's Preliminary Working Draft for Discussion Purposes Only**
***2020 - 2025 Six-Year CIP Project Allocations***
**Attachment H**
11/6/2019

Capital Investment Strategy Project
Grant/External Revenue Awarded
Cost Share Contribution to Others
Added in 2019
Proposed New Add in 2020

| No. | Title | Basin | Type of project | 2018 Inception to Date Expenditure | 2019 Inception to Date Budget | 2019 Available Budget | 2020 Requested | 2021 Forecasted | 2022 Forecasted | 2023 Forecasted | 2024 Forecasted | 2025 Forecasted | 6-Year CIP Total | CIS Year 7-10 | CIS 10+ Year | Project Life Total | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | WLFL0 SF SKYKMSH REP LOSS MIT | SF Skykomish | FCD Acqu/Elev | $638,668 | $1,145,404 | $506,736 | ($456,736) | $456,736 | $0 | $0 | $0 | $115,927 | $115,927 | | | $1,261,331 | Baring. 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. |
| 2 | WLFL0 SKY W RVR DR FLOOD STUDY | SF Skykomish | FCD Const | $2,856 | $81,237 | $78,381 | ($78,381) | $78,381 | $0 | $0 | $0 | $0 | $0 | | | $81,237 | Skykomish. 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. |
| 3 | 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 | Skykomish. Approximately 50-foot-long section of missing armor rock immediately downstream of the bridge. Further flooding may compromise or severely damage facility. |
| 4 | WLFL0 TIMBER LN EROSN BUYOUTS | SF Skykomish | FCD Acqu/Elev | $1,959,242 | $2,409,874 | $450,632 | ($365,632) | $0 | $765,632 | $0 | $0 | $0 | $400,000 | | | $2,809,874 | Skykomish. 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. |
| 5 | WLFL0 TIMBERLANE 2016 REPAIR | SF Skykomish | FCD Const | $11,115 | $16,040 | $4,925 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $16,040 | Skykomish. Project will lay back the privately-built rockery to reconstruct rock wall into stable revetment geometry. Will likely be implemented by the Strike Team. |
| 6 | WLFL0 TIMBERLANE 2019 REPAIR | SF Skykomish | FCD Const | $0 | $600,000 | $600,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $600,000 | Skykomish. 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. |
| 7 | WLFL1 428TH AVE SE BR FEASIBILITY | Upper Snoq | FCD Const | $309,028 | $309,028 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $309,028 | North Bend. Reduce neighborhood isolation from flooding. Develop a set of alternatives for improvements to 428th Avenue SE, SE 92nd Street, and Reinig Road to reduce the frequency of community isolation caused by floodwaters overtopping these roadways. |
| 8 | WLFL1 CIRCLE RVR RANCH RISK RED | Upper Snoq | FCD Const | $127,225 | $540,165 | $412,940 | $133,524 | $238,175 | $4,052,588 | $4,560 | $0 | $0 | $4,428,848 | | | $4,969,013 | North Bend. 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. |
| 9 | WLFL1 MF SNO CORRIDOR IMP | Upper Snoq | FCD Const | $954 | $954 | $0 | $0 | $1,162,249 | $1,196,980 | $1,232,889 | $377,890 | $0 | $3,970,008 | | | $3,970,962 | North Bend. Placeholder for corridor plan implementation project(s) |
| 10 | WLFL1 MF SNO CORRIDOR PLAN | Upper Snoq | FCD Const | $1,502,409 | $1,824,912 | $322,503 | $27,585 | $0 | $0 | $0 | $0 | $0 | $27,585 | | | $1,852,497 | North Bend. Middle Fork Snoqualmie Corridor Planning, scheduled for completion in 2018. |
| 10 | WLFL1 MF SNO PL84-99 | Upper Snoq | FCD Const | $0 | $0 | $0 | $75,000 | $75,000 | $0 | $0 | $0 | $0 | $150,000 | | | $150,000 | North Bend. Upgrade the Middle Fork Snoqualmie levees to meet the US Army Corps of Engineers PL84-99 certification standards. |
| 11 | WLFL1 MF RESIDENTIAL FLD MTGTN | Upper Snoq | FCD Acqu/Elev | $0 | $0 | $0 | $120,000 | $525,000 | $1,830,000 | $1,830,000 | $1,830,000 | $2,265,000 | $8,400,000 | | | $8,400,000 | North Bend. Replace two existing rusted out 46" 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. |
| 12 | WLFL1 NORMAN CREEK DS CULV | Upper Snoq | Agreement | $722,582 | $724,000 | $1,418 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $724,000 | North Bend. 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. |
| 13 | WLFL1 NORMAN CREEK US 2024 CULV | Upper Snoq | Agreement | $0 | $0 | $0 | $0 | $0 | $0 | $350,000 | $750,000 | $0 | $1,100,000 | | | $1,100,000 | North Bend. Improve SE 92nd Street, east of 428th Street, and alleviate roadway flooding by installing a new box culvert. |
| 14 | WLFL1 NORTH FORK BRIDGE 2016 REPAIR | Upper Snoq | Agreement | $177,742 | $177,742 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $177,742 | North Bend. 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. |
| 15 | WLFL1 NORTH FORK BRIDGE FEASIBILITY | Upper Snoq | Agreement | $0 | $200,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $200,000 | North Bend. Initiate 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. |
| 16 | WLFL1 RECORD OFFICE 2016 REPAIR | Upper Snoq | Agreement | $29,181 | $987,835 | $958,654 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $987,835 | Snoqualmie. Repair downstream 200 lineal 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 2020. |
| 17 | WLFL1 REIF RD LEVEE IMPROVEMENTS | Upper Snoq | FCD Const | $0 | $0 | $0 | $0 | $0 | $265,438 | $318,421 | $385,937 | $457,218 | $1,427,014 | | | $1,427,014 | North Bend. Conduct a feasibility study to determine ways of preventing the overtopping of the Reif Rd Levee. Potential solutions include: repair and/or raise levee in place / setback levee / gravel removal / home elevations. |
| 18 | WLFL1 BENDIGO UPR SETBACK NORTH BEND | Upper Snoq | Agreement | $0 | $50,000 | $50,000 | $0 | $0 | $0 | $0 | $0 | $4,200,000 | $4,200,000 | | | $4,250,000 | North Bend. 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 |
| 19 | WLFL1 REINIG RD ELEVATION | Upper Snoq | Agreement | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $50,000 | $100,000 | $150,000 | | | $150,000 | Snoqualmie. Elevate low section of Reinig Rd to alleviate flooding that blocks roadway. |
| 20 | WLFL1 REINIG RD RVTMNT 2016 REPAIR | Upper Snoq | FCD Const | $391,568 | $1,200,000 | $808,432 | $4,057,657 | $25,462 | $0 | $0 | $0 | $0 | $4,083,119 | | | $5,283,119 | North Bend. 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. |
| 21 | WLFL1 RIBARY CREEK | Upper Snoq | FCD Const | $0 | $36,492 | $36,492 | $150,000 | $450,000 | $2,338,818 | $3,223,883 | $0 | $0 | $6,162,501 | | | $6,198,993 | North Bend. Address flooding from Ribary Creek at Bendigo Blvd in North Bend as the Snoqualmie levees prevent drainage to the river during high flows. |
| 22 | WLFL1 SF CIS MED TERM | Upper Snoq | FCD Const | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $43,000,000 | | $43,000,000 | North Bend. Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee. |
| 23 | WLFL1 SF CIS LONG TERM | Upper Snoq | FCD Const | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | $57,100,000 | $57,100,000 | North Bend. Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee. |
| 24 | WLFL1 SF SNO CORRIDOR PLAN | Upper Snoq | FCD Const | $2,573,493 | $2,573,493 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $2,573,493 | North Bend. SF Snoqualmie Corridor planning process and development of capital investment strategy. |

| No. | Title | Basin | Type of project | 2018 Inception to Date Expenditure | 2019 Inception to Date Budget | 2019 Available Budget | 2020 Requested | 2021 Forecasted | 2022 Forecasted | 2023 Forecasted | 2024 Forecasted | 2025 Forecasted | 6-Year CIP Total | CIS Year 7-10 | CIS 10+ Year | Project Life Total | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 25 | WLFL1 SF SNO LEVEE REMEDIATION | Upper Snoq | FCD Const | $173,977 | $388,000 | $214,023 | $0 | $727,790 | $1,031,736 | $0 | $0 | $0 | $1,759,526 | | | $2,147,526 | North Bend. Six levee deficiencies have been identified in this leveed segment. The project will design and reconstruct the impaired segment of levee in place. |
| 26 | WLFL1 SHAKE MILL LB 2016 REPAIR | Upper Snoq | FCD Const | $388,601 | $3,550,000 | $3,161,399 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $3,550,000 | North Bend. 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. |
| 27 | WLFL1 SHAKE MILL RB 2016 REPAIR | Upper Snoq | FCD Const | $1,090 | $51,090 | $50,000 | $100,000 | $360,910 | $0 | $0 | $0 | $0 | $460,910 | | | $512,000 | North Bend. 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. |
| 28 | WLFL1 SI VIEW RM4 2017 REPAIR | Upper Snoq | FCD Const | $136,754 | $396,754 | $260,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $396,754 | North Bend. Repair approximately 25 lineal feet of the facility with missing toe rock and shallow scour scallop 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. |
| 29 | WLFL1 SR202 SF BRIDGE LENGTHEN | Upper Snoq | FCD Const | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $100,000 | $100,000 | | | $100,000 | North Bend. 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. |
| 30 | WLFL1 TATE CR SCOUR FEASIBILITY | Upper Snoq | Agreement | $0 | $0 | $0 | $0 | $0 | $0 | $150,000 | $0 | $0 | $150,000 | | | $150,000 | North Bend. 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. |
| 31 | WLFL1 UPPER SNOQ 2015 FLOOD REPAIR | Upper Snoq | FCD Const | $555,771 | $556,781 | $1,009 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $556,781 | North Bend. Flood damage repairs from January 2015 flood event. Locations include Mason-Thorson Ells and Mason-Thorson Extension (Middle Fork Snoqualmie); North Park (North Fork Snoqualmie); and Record Office, Meadowbrook, and Railroad (Snoqualmie mainstem). |
| 32 | WLFL1 UPR SNO RES FLD MITIGTN | Upper Snoq | FCD Acqu/Elev | $11,411,570 | $12,717,550 | $1,305,980 | $1,756,037 | $2,295,755 | $2,364,628 | $2,435,567 | $2,508,634 | $2,583,893 | $13,944,513 | | | $26,662,063 | Snoqualmie. 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 City of Snoqualmie to elevate homes and cost-share acquisition of homes where City is planning to construct the Riverwalk project. |
| 33 | WLFL1 USACE PL 84-99 SF SNO | Upper Snoq | FCD Const | $4,769 | $333,377 | $328,608 | $0 | $352,868 | $363,454 | $0 | $0 | $0 | $716,322 | | | $1,049,699 | North Bend. 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.. |
| 34 | WLFL2 264TH AVE NE AT SR 202 FLD IMPRVMNT | Lower Snoq | Agreement | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $540,000 | $540,000 | | | $540,000 | Redmond. Alleviate flooding on this sole access road by replacing the existing culverts and raising the roadway to eliminate over-topping. |
| 35 | WLFL2 334TH AVE SE & SE 43RD PL FLD IMPRVMNT | Lower Snoq | Agreement | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $500,000 | $500,000 | | | $500,000 | Improve drainage to alleviate neighborhood flooding by constructing a drainage system to flow to the Snoqualmie River. |
| 35 | WLFL2 CITY SNOQ HOME ELEVATIONS | Lower Snoq | Agreement | $0 | $0 | $0 | $1,118,000 | $0 | $0 | $0 | $0 | $0 | $1,118,000 | | | $1,118,000 | City of Snoqualmie: Elevate several flood-prone homes in the areas around Walnut St and Northern St. |
| 36 | WLFL2 DUTCHMAN RD REPAIR | Lower Snoq | FCD Const | $0 | $48,593 | $48,593 | $0 | $200,000 | $500,000 | $0 | $0 | $0 | $700,000 | | | $748,593 | Duvall. 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. |
| 37 | WLFL2 L SNO SCOUR REPAIR 2017 | Lower Snoq | Agreement | $143,386 | $150,000 | $6,614 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $150,000 | Fall City. 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. |
| 38 | WLFL2 FARM PAD PROGRAM | Lower Snoq | FCD Acqu/Elev | $805,446 | $979,803 | $174,357 | $0 | $115,214 | $118,670 | $122,230 | $125,897 | $129,674 | $611,685 | | | $1,591,488 | Carnation. 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. |
| 39 | WLFL2 L SNO REP LOSS MITGTION | Lower Snoq | FCD Acqu/Elev | $1,269,231 | $1,695,671 | $426,440 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $1,695,671 | Carnation. Funding as possible local match for FEMA grants to elevate or acquire at-risk structures. |
| 40 | WLFL2 L SNO/ALDAIR CORRDOR PLN | Lower Snoq | FCD Const | $6,326,158 | $7,365,814 | $1,039,656 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $7,365,814 | Fall City. 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 revetments, roads, and landowners. FCD expenditure leverages habitat restoration funding from other sources. |
| 41 | WLFL2 LWR SNO RESDL FLD MITGTN | Lower Snoq | FCD Acqu/Elev | $2,201,472 | $3,043,609 | $842,137 | $272,863 | $530,450 | $546,363 | $562,754 | $579,637 | $0 | $2,492,068 | | | $5,535,677 | Carnation. 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. |
| 41 | WLFL2 MUD CREEK SEDIMENT FACILITY | Lower Snoq | Agreement | $0 | $0 | $0 | $432,000 | $0 | $0 | $0 | $0 | $0 | $432,000 | | | $432,000 | Snoqualmie: Design and permit a sediment facility to minimize sediment deposition, flooding, and channel avulsions at this site. |
| 42 | WLFL2 SE 19TH WAY REVETMENT | Lower Snoq | FCD Const | $1,643,036 | $1,916,294 | $273,258 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $1,916,294 | Fall City. Rebuild revetment to protect road access to high value agricultural operations and lands. Construction is complete. |
| 43 | WLFL2 SE DAVID POWELL RD DOWNSTREAM | Lower Snoq | Agreement | $594,807 | $595,098 | $291 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $595,098 | Fall City. Reduce neighborhood isolation from flooding. Prevent slope failure of sole access roadway that would isolate 150 homes. |
| 44 | WLFL2 L SNO 2019 BANK REPAIR | Lower Snoq | Agreement | $226,149 | $2,200,000 | $1,973,851 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $2,200,000 | Fall City. 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. |
| 45 | WLFL2 SE FISH HATCHERY RD | Lower Snoq | Agreement | $496,163 | $496,163 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $496,163 | Fall City. Reduce neighborhood isolation from flooding. Prevent slope failure of sole access roadway that would isolate 20-30 homes. |
| 46 | WLFL2 FISH HATCHERY RD BR #61B REPAIR | Lower Snoq | Agreement | $0 | $0 | $0 | $80,000 | $620,000 | $0 | $0 | $0 | $0 | $700,000 | | | $700,000 | Duvall. Strengthen the bridge structure to stabilize it after the most recent flood event, rebuild the east approach roadway to address the current issue and to protect it against major flood events in the future, and restore the eroded creek bed and riverbank profile to buffer the bridge against scour. |
| 46 | WLFL2 SINNEMA QUAALE 2011 REPR | Lower Snoq | FCD Const | $12,439,513 | $12,508,516 | $69,003 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $12,508,516 | Duvall. Large capital project to repair 1000 linear feet of the Sinnema Quaale Upper revetment. Protects SR 203, two regional fiber optic lines, and Snoqualmie Valley Trail. Construction is complete. |
| 47 | WLFL2 SNOQUALMIE VALLEY FEAS | Lower Snoq | Agreement | $0 | $0 | $0 | $0 | $250,000 | $250,000 | $0 | $0 | $0 | $500,000 | | | $500,000 | Duvall. 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. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 48 | WLFL2 STOSSEL RB 2018 REPAIR | Lower Snoq | FCD Const | $907,886 | $1,107,886 | $200,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $1,107,886 | Carnation. This completed project repaired 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. |
| 49 | WLFL2 STOSSEL LONG TERM REPAIR | Lower Snoq | FCD Const | $0 | $0 | $0 | $50,000 | $150,000 | $170,000 | $500,000 | $2,500,000 | $0 | $3,370,000 | | | $3,370,000 | CarnationPlaceholder costs for long-term facility improvement project to prevent erosion undermining 310th Ave NE. |
| 50 | WLFL2 TOLT PIPELINE PROTECTION | Lower Snoq | FCD Const | $10,342,073 | $10,778,068 | $435,995 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $10,778,068 | Carnation. 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 is complete. |
| 51 | WLFL2 DUVALL SLOUGH 2017 IMPRV | Lower Snoq | Agreement | $277,937 | $400,000 | $122,063 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $400,000 | Duvall. These two bridges are subject to having the roadway approach fill wash out during a flood. Excavate approaches and rebuild approaches to prevent loosing approaches during flooding. A similar repair was done on Woodinville-Duvall Bridge No. 1136D. |
| 52 | WLFL3 FREW LEVEE 2016 REPAIR | Tolt | FCD Const | $164,558 | $360,360 | $195,802 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $360,360 | Carnation. 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. Construction is complete. |
| 53 | WLFL3 GIRL SCOUT LEVEE 2016 REPAIR | Tolt | FCD Const | $160,096 | $311,000 | $150,904 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $311,000 | Carnation. 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. |
| 54 | WLFL3 HOLBERG 2019 REPAIR | Tolt | FCD Const | $0 | $25,000 | $25,000 | $25,000 | $450,000 | $0 | $0 | $0 | $0 | $475,000 | | | $500,000 | Carnation. Facility failure has consequences for property owners immediately landward of facility. Potential for high flows and erosive damage to residences and property. |
| 55 | WLFL3 HOLBERG FEASIBILITY | Tolt | FCD Const | $62,156 | $263,969 | $201,813 | $84,222 | $0 | $0 | $0 | $0 | $0 | $84,222 | | | $348,191 | Carnation. 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 |
| 56 | WLFL3 LOWER FREW LEVEE SETBACK | Tolt | FCD Const | $237 | $478,664 | $478,427 | $100,000 | $700,000 | $850,000 | $700,000 | $14,650,000 | $100,000 | $17,100,000 | | | $17,578,664 | Carnation. 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 |
| 57 | WLFL3 LOWER TOLT RIVER ACQUISITION | Tolt | FCD Acqu/Elev | $529,475 | $744,475 | $215,000 | ($190,000) | $0 | $0 | $0 | $0 | $0 | ($190,000) | | | $554,475 | Carnation. Acquisition between the Swiftwater development and the river for the future setback of the Upper Frew Levee |
| 58 | WLFL3 REMLINGER LEVEE 2017 REPAIR | Tolt | FCD Const | $139,912 | $311,000 | $171,088 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $311,000 | Carnation. Damage is approximately 60 lineal 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. Construction complete. |
| 59 | WLFL3 RIO VISTA PROPERTY ACQ | Tolt | FCD Acqu/Elev | $203 | $500,000 | $499,797 | ($449,797) | $0 | $449,797 | $0 | $0 | $0 | $0 | | | $500,000 | Carnation. Capital Investment Strategy: Acquire 2 at-risk homes from willing sellers; acquire remaining 14 homes as funds become available. |
| 60 | WLFL3 SAN SOUCI NBRHOOD BUYOUT | Tolt | FCD Acqu/Elev | $4,359,533 | $4,953,353 | $593,820 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $4,953,353 | Carnation. 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. Approximatelly 20 homes removed from high hazard areas within and just upstream and downstream of San Souci neighborhood. |
| 61 | WLFL3 SAN SOUCI REACH IMPRVMNTS | Tolt | FCD Const | $0 | $160,000 | $160,000 | $25,000 | $90,000 | $700,000 | $700,000 | $825,000 | $0 | $2,340,000 | | | $2,500,000 | Carnation. Capital Investment Strategy: Construct Tolt Road NE road elevation in one location. Remove illegal revetment and roads in San Souci neighborhood. |
| 62 | WLFL3 SEDIMENT MGMT FEAS | Tolt | FCD Const | $6,499 | $402,805 | $396,306 | $38,553 | $15,648 | $0 | $0 | $0 | $0 | $54,201 | | | $457,006 | Carnation. Capital Investment Strategy: Conduct sediment management feasibility study and develop a plan. Update and include upper watershed sediment production estimates |
| 63 | WLFL3 SR 203 BR IMPRVMNTS FEAS | Tolt | FCD Const | $1,104 | $395,900 | $394,796 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $395,900 | Carnation. 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. |
| 64 | WLFL3 TOLT 2015 FLOOD REPAIRS | Tolt | FCD Const | $46,909 | $46,909 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $46,909 | Carnation. Flood damage repairs from January 2015 flood event. Locations include Frew, Upper Frew, Remlinger, and Girl Scout Camp. |
| 65 | WLFL3 TOLT CIS MED TERM | Tolt | FCD Const | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $56,250,000 | | $56,250,000 | Carnation. Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee. |
| 66 | WLFL3 TOLT CIS LONG TERM | Tolt | FCD Const | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | $28,800,000 | $28,800,000 | Carnation. Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee. |
| 67 | WLFL3 TOLT CORRIDOR PLAN | Tolt | FCD Const | $1,138,802 | $1,153,657 | $14,855 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $1,153,657 | Carnation. The corridor plan for the lower 6 miles of the Tolt River will develop a prioritized implementation strategy for near-term and long-term floodplain management actions. Scheduled for adoption in 2017. |
| 68 | WLFL3 TOLT R LEVEE L.O.S. ANALYSIS | Tolt | FCD Const | $156,769 | $413,484 | $256,715 | $278,651 | $31,031 | $0 | $0 | $0 | $0 | $309,682 | | | $723,166 | Carnation. Capital Investment Strategy: Conduct a detailed hydraulic analysis to optimize the elevation of new levees to maximize flood risk reduction benefits |
| 69 | WLFL3 TOLT R MILE 1.1 ACQ | Tolt | FCD Acqu/Elev | $4,120,326 | $4,306,106 | $185,781 | ($50,781) | $850,781 | $0 | $0 | $0 | $0 | $800,000 | | | $5,106,106 | Carnation. Acquisition funding for high risk properties in levee setback project area. Project priorities will be determined by the Board through adoption of the Tolt Corridor Plan. |
| 70 | WLFL3 TOLT R NATURAL AREA ACQ | Tolt | FCD Acqu/Elev | $2,550,314 | $2,605,067 | $54,753 | $1,350,247 | $0 | $685,000 | $0 | $0 | $0 | $2,035,247 | | | $4,640,314 | Carnation. Capital investment strategy: acquire at-risk homes from willing sellers. |
| 71 | WLFL3 TOLT R RD ELEVATION FEASIBILITY | Tolt | FCD Const | $49,508 | $250,000 | $200,492 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $250,000 | Carnation. Reduce neighborhood isolation from flooding. Evaluate feasibility of elevating sections of Tolt River Road. |
| 72 | WLFL3 TOLT R RD NE IMPROVEMENTS | Tolt | FCD Const | $0 | $0 | $0 | $0 | $53,045 | $109,273 | $225,102 | $1,043,347 | $1,432,863 | $2,863,628 | | | $2,863,628 | Carnation. Capital Investment Strategy: Initiate design for elevation of one road location to reduce or eliminate isolation. Implement additional road elevations as funds become available. |
| 73 | WLFL3 UPPER FREW LEVEE SETBACK | Tolt | FCD Const | $0 | $0 | $0 | $50,000 | $159,090 | $175,099 | $1,200,000 | $1,500,000 | $14,800,000 | $17,884,189 | | | $17,884,189 | Carnation. 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. |
| 74 | WLFL4 ALPINE MANOR NEIGHBORHOOD BUYOUTS | Raging | FCD Acqu/Elev | $1,753,659 | $1,853,460 | $99,801 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $1,853,460 | Fall City. 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. |
| 75 | WLFL4 RAGING MOUTH TO BR 2017 REPAIR | Raging | FCD Const | $257,426 | $500,000 | $242,574 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $500,000 | Fall City. 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. |

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| 76 | WLFL4 RAGING SCOUR REPAIR 2017 | Raging | Agreement | $25,062 | $80,000 | $54,938 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $80,000 | Fall City. 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. |
| 77 | **Snoqualmie-South Fork Skykomish Subtotal** | | | $74,399,800 | $94,421,452 | $19,821,651 | $8,733,012 | $10,963,585 | $18,763,277 | $13,555,407 | $27,126,341 | $27,324,575 | $106,466,196 | $99,250,000 | $85,900,000 | $386,037,648 | |
| 78 | | | | | | | | | | | | | | | | | |
| 79 | | | | | | | | | | | | | | | | | |
| 80 | WLFL5 ALLEN LK OUTLET IMPRVMNT | Sammamish | Agreement | $0 | $0 | $0 | $400,000 | $1,400,000 | $1,000,000 | $0 | $0 | $0 | $2,800,000 | | | $2,800,000 | Sammamish. To address chronic flooding on this sole access roadway with approximately 200 properties, look at upstream and downstream retention/detention options; study road-raining options; prepare Concept Development Report, analyze and select best options. |
| 80 | WLFL5 GEORGE DAVIS CRK CITY OF SAMMAMISH | Sammamish | Agreement | $0 | $0 | $0 | $400,000 | $0 | $0 | $0 | $0 | $0 | $400,000 | | | $400,000 | Sammamish: This project will restore access to one river mile of high quality kokanee salmon habitat and reduce the risk of flooding by reducing sediment deposition. |
| 81 | WLFL5 SAMMAMISH R BANK REPAIRS | Sammamish | FCD Const | $1,632,936 | $1,180,065 | ($452,871) | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $1,180,065 | Woodinville. 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. |
| 82 | WLFL5 WILLOWMOOR FLDPLAIN REST | Sammamish | FCD Const | $2,255,441 | $3,520,977 | $1,265,536 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $3,520,977 | Redmond. 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. |
| 83 | WLFL6 BEAR CRK FLOOD EROSION REDMOND | Lk Wash Tribs | Agreement | $0 | $0 | $0 | $550,000 | $550,000 | $0 | $0 | $0 | $0 | $1,100,000 | | | $1,100,000 | Redmond: Protect Avondale Rd from an embankment that has been scoured by floodwaters from Bear Creek. |
| 84 | WLFL6 ISSAQUAH TRIB FEAS | Lk Wash Tribs | Agreement | $150,000 | $350,000 | $200,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $350,000 | Issaquah. Prepare a feasibility analysis report which will include, but is not limited to, surveying, geotechnical analysis, traffic analysis, and hydraulic analysis to identify potential solutions to bridge deficiencies, including a constructed hydraulic opening with piles that collect debris and pose risks to the stability of the bridge. |
| 84 | WLFL6 FACTORIA BLVD DRAINAGE | Lk Wash Tribs | Agreement | $0 | $0 | $0 | $1,071,000 | $3,721,000 | $2,022,000 | $0 | $0 | $0 | $6,814,000 | | | $6,814,000 | Bellevue. Reduce flooding during high-intensity storm events along Factoria Boulevard, a major transportation corridor within the City of Bellevue. These events have increased in frequency and are anticipated to be even more frequent in the future as a result of climate change. |
| 85 | WLFL6 LOWER COAL CRK PH I | Lk Wash Tribs | Agreement | $5,401,669 | $10,461,592 | $5,059,923 | $600,000 | $300,000 | $200,000 | $285,000 | $1,310,000 | $1,432,358 | $4,127,358 | | | $14,500,950 | Bellevue. 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. |
| 86 | WLFL6 MAY VALLEY DRAINAGE IMPRVMNT | Lk Wash Tribs | FCD Const | $0 | $380,000 | $380,000 | $150,000 | $0 | $0 | $0 | $0 | $0 | $150,000 | | | $530,000 | Newcastle. As recommended in the May Creek Basin Plan, two sediment trap facilities will be constructed on May Creek tributaries (Cabbage and Country Creeks) to limit sediment loading. FCD funding is for initial feasibility analysis, landowner outreach, and acquisition of property from willing sellers for a future sediment facility. 2020 funding is for permitting and design of a sediment facility. |
| 87 | WLFL7 CDR PRE-CONST STRTGC ACQ | Cedar | FCD Acqu/Elev | $2,611,789 | $4,330,532 | $1,718,743 | $0 | $0 | $0 | $0 | $0 | $1,200,000 | $1,200,000 | | | $5,530,532 | Renton. 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, Gelchman, and Rulledge-Johnson Lower Jones Rd levee segments. Acquisition funding related to these projects is now included in the individual capital projects. |
| 88 | WLFL7 CEDAR LEVEE SETBACK FEAS (Cedar Corridor | Cedar | FCD Const | $1,850,907 | $1,987,587 | $136,680 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $1,987,587 | Renton. 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. Project complete. Closeout in 2020. |
| 89 | WLFL7 CEDAR CIS MED TERM | Cedar | FCD Acqu/Elev | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $22,000,000 | | $22,000,000 | Renton. Elevate or acquire highest risk and repetitive loss properties from willing sellers. Elevate or purchase approximately 2 homes each year. |
| 90 | WLFL7 CEDAR CIS LONG TERM | Cedar | FCD Acqu/Elev | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | $35,400,000 | $35,400,000 | Renton.Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee. |
| 91 | WLFL7 CEDAR RES FLOOD MITIGATION | Cedar | FCD Acqu/Elev | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $800,000 | $800,000 | | | $800,000 | Renton. Implement projects identified in the Capital Investment Strategy, approved as policy direction by the Executive Committee. |
| 92 | WLFL7 CEDAR R REP LOSS MITGATN | Cedar | FCD Acqu/Elev | $3,182,200 | $3,182,200 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $3,182,200 | Renton. Acquire frequently-flooded homes. Placeholder funding until District adopts acquisition policy. |
| 93 | WLFL7 CRT SITE A BANK | Cedar | FCD Const | $92 | $290,000 | $289,908 | $68,302 | $0 | $0 | $0 | $0 | $0 | $68,302 | | | $358,302 | Renton. Capital Investment Strategy: Repair eroded section of left bank with bioengineered revetment to stabilize toe of bank and to prevent large scale bank failure. |
| 94 | WLFL7 CEDAR RVR GRAVEL REMOVAL | Cedar | Agreement | $9,829,478 | $12,065,498 | $2,236,020 | $501,051 | $445,679 | $111,267 | $114,605 | $500,000 | $500,000 | $2,172,602 | | | $14,238,100 | Renton. 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. |
| 95 | WLFL7 CEDAR R DWNSTREAM 2024 IMPV | Cedar | Agreement | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $100,000 | $0 | $100,000 | | | $100,000 | Renton. 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. |
| 96 | WLFL7 CITY OF RENTON LEVEE CERTIFICATION | Cedar | Agreement | $0 | $3,750,000 | $3,750,000 | $1,250,000 | $0 | $0 | $0 | $0 | $0 | $1,250,000 | | | $5,000,000 | Renton. Levee improvements necessary to satisfy levee certification engineering recommendations. |
| 97 | WLFL7 FBD CORRIDOR IMPLEMENTATION | Cedar | FCD Acqu/Elev | $5,224,475 | $5,311,784 | $87,309 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $5,311,784 | Renton. 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 Riverbend. |
| 98 | WLFL7 HERZMAN LEVEE SETBACK | Cedar | FCD Const | $346,270 | $1,266,476 | $920,206 | $287,337 | $3,828,982 | $66,818 | $0 | $0 | $0 | $4,183,137 | | | $5,449,613 | Renton. Capital Investment Strategy: Setback levee; excavate side-channel to reduce pressure on revetment; reconstruct, reinforce and/or extend revetment; acquire up to 5 properties. |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 99 | WLFL7 JAN ROAD NEIGHBORHOOD | Cedar | FCD Const | $34,384 | $1,484,731 | $1,450,347 | $622,137 | $4,845,422 | $828,271 | $0 | $0 | $0 | $6,295,830 | | | $7,780,561 | Renton. 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. |
| 100 | WLFL7 LOWER CEDAR FEASIBILITY STUDY | Cedar | FCD Const | $342 | $400,000 | $399,658 | $0 | $120,000 | $0 | $0 | $0 | $0 | $120,000 | | | $520,000 | Renton. Capital Investment Strategy: Conduct feasibility study of Lower Cedar reach in City of Renton to 1) quantity economic damage potential 2) determine infrastructure modifications to improve flood resiliency and sediment storage potential, and 3) conduct cost-benefit analysis. |
| 101 | WLFL7 LOWER JONES ROAD NEIGHBORHOOD | Cedar | FCD Const | $608,558 | $1,898,466 | $1,289,908 | $0 | $681,352 | $235,089 | $4,540,762 | $1,631,720 | $0 | $7,088,924 | | | $8,987,390 | Renton. Capital Investment Strategy: Raise in place or setback Jones Road; excavate and stabilize right bank to increase conveyance capacity; reinforce one revetment; remove portion of another revetment; acquire 8 at risk properties Construction delayed to 2024 to accommodate Jan Rd construction in 2021 or 2022. |
| 102 | WLFL7 MADSEN CR RENTON | Cedar | Agreement | $0 | $635,000 | $635,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $635,000 | Renton. Design and implement phase I improvements to Madsen Creek to achieve 100-year level flood protection for properties south of SR 169 and 25-year level flood protection for properties north of SR 169. |
| 103 | WLFL7 MAPLEWOOD FEASIBILITY STUDY | Cedar | FCD Const | $179,145 | $490,246 | $311,101 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $490,246 | Renton. 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. |
| 104 | WLFL7 ISSAQUAH MAY VALLEY IMPV | Cedar | Agreement | $0 | $100,000 | $100,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $100,000 | Issaquah. Construct intersection improvements which could be either a roundabout or additional travel lanes with a travel signal at the intersection of Issaquah Hobart Road SE and SE May Valley Road. |
| 105 | WLFL7 RIVERBEND MHP ACQ | Cedar | FCD Acqu/Elev | $4,362,885 | $5,231,042 | $868,157 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $5,231,042 | Renton. 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. |
| 106 | WLFL7 MADSEN CR CULVERT 2017 | Cedar | Agreement | $206,205 | $1,100,000 | $893,795 | $1,470,000 | $0 | $0 | $0 | $0 | $0 | $1,470,000 | | | $2,570,000 | Renton. 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. |
| 107 | WLFL7 SR 169 FEASIBILITY STUDY | Cedar | FCD Const | $170,603 | $646,800 | $476,197 | $138,203 | $0 | $0 | $0 | $0 | $0 | $138,203 | | | $785,003 | Renton. 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. |
| **108** | **Cedar-Sammamish Subtotal** | | | **$38,047,379** | $60,062,996 | $22,015,617 | $7,508,030 | $15,892,435 | $4,463,445 | $4,940,367 | $3,541,720 | $3,932,358 | $40,278,355 | $22,000,000 | $35,400,000 | $157,741,351 | |
| 109 | | | | | | | | | | | | | | | | | |
| 110 | | | | | | | | | | | | | | | | | |
| 111 | WLFL8 BRISCOE LEVEE SETBACK | Green | Agreement | $21,072,606 | $23,330,271 | $2,257,665 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $23,330,271 | Kent. 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 6, 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. |
| 112 | WLFL8 BRPS CONTROL BLDG RPLCMT | Green | FCD Const | $106 | $380,506 | $380,400 | $1,926,876 | $7,813,278 | $13,241,331 | $9,647 | $0 | $0 | $22,991,133 | | | $23,371,639 | Renton. 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. |
| 113 | WLFL8 BRPS FISH PASS IMPRVMNTS | Green | FCD Const | $0 | $0 | $0 | $0 | $992,079 | $3,782,881 | $4,107,257 | $3,453,157 | $92,073 | $12,427,447 | | | $12,427,447 | Renton. 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. |
| 114 | WLFL8 BRPS HIGH-USE ENGINES | Green | FCD Const | $215,646 | $1,484,646 | $1,269,000 | $3,949,130 | $33,949 | $0 | $0 | $0 | $0 | $3,983,079 | | | $5,467,725 | Renton. 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. |
| 115 | WLFL8 BRPS SUPPORT SYS UPGRADES | Green | FCD Const | $0 | $0 | $0 | $1,149 | $183,181 | $940,317 | $876,479 | $12,074 | $0 | $2,013,200 | | | $2,013,200 | Renton. 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, oilers and hoists. |
| 116 | WLFL8 COVINGTON CR BLACK DIAMOND | Green | Agreement | $0 | $0 | $0 | $291,500 | $2,002,000 | $0 | $0 | $0 | $0 | $2,293,500 | | | $2,293,500 | Black Diamond: Remove the three 6-foot diameter culverts where Lake Sawyer flows into Covington Creek and replace with a bridge to eliminate obstructions for water flow and allow passage for migrating salmon. |
| 116 | WLFL8 GALLI-DYKSTRA FEASIBILITY | Green | FCD Const | $0 | $330,000 | $330,000 | ($330,000) | $0 | $0 | $0 | $0 | $0 | ($330,000) | | | $0 | Auburn. Conduct a feasibility study to raise the levee providing 100-year flood protection plus 3 feet of freeboard. Canceled and incorporated into Galli-Dykstra 2020 Repair. |
| 117 | WLFL8 GALLI-DYKSTRA 2020 REPAIR | Green | FCD Const | $0 | $200,000 | $200,000 | $207,314 | $1,750,783 | $0 | $0 | $0 | $0 | $1,958,097 | | | $2,158,097 | Auburn. Complete Phase 1 repair per a request from the City of Auburn. Elevate 3500 feet levee reach to meet FEMA levee certification requirements. |
| 118 | WLFL8 GREEN PRE-CONST ACQ | Green | FCD Acqu/Elev | $393,751 | $10,368,856 | $9,975,105 | $0 | $5,000,000 | $5,000,000 | $5,000,000 | $5,000,000 | $5,000,000 | $25,000,000 | | | $35,368,856 | Tukwila. 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. |
| 119 | WLFL8 GREEN R PL84-99 MITIGATN | Green | FCD Const | $5,173,981 | $5,660,542 | $486,561 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $5,660,542 | Auburn. 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. |
| 120 | WLFL8 HSB BREDA SETBACK KENT | Green | Agreement | $834,330 | $4,756,953 | $3,924,623 | $2,431,377 | $8,381,110 | $43,709 | $0 | $0 | $0 | $10,856,196 | | | $15,615,149 | Kent. 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. |

| No. | Title | Basin | Type of project | 2018 Inception to Date Expenditure | 2019 Inception to Date Budget | 2019 Available Budget | 2020 Requested | 2021 Forecasted | 2022 Forecasted | 2023 Forecasted | 2024 Forecasted | 2025 Forecasted | 6-Year CIP Total | CIS Year 7-10 | CIS 10+ Year | Project Life Total | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 121 | WLFL8 HSB MCCOY REALIGNMENT KENT | Green | Agreement | $4,138 | $400,000 | $395,862 | $116,138 | $2,333,980 | $784,909 | $0 | $0 | $0 | $3,215,027 | | | $3,615,027 | Kent. 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. |
| 122 | WLFL8 HSB NURSING HOME SETBACK | Green | FCD Const | $0 | $0 | $0 | $0 | $100,000 | $2,000,000 | $500,000 | $0 | $0 | $2,600,000 | | | $2,600,000 | Kent. 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. |
| 123 | WLFL8 INTERIM SWIF IMPLEMENTATION | Green | FCD Const | $66,887 | $85,000 | $18,113 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $85,000 | Kent. Coordination and planning activities to implement recommendations of interim SWIF. Maintenance work associated with the interim SWIF is included in the operating budget. |
| 124 | WLFL8 LONES LEVEE SETBACK | Green | Agreement | $0 | $0 | $0 | $500,000 | $0 | $0 | $0 | $0 | $0 | $500,000 | | | $500,000 | Contribute the partial cost of a levee repair ($500,000) to a $6.4 million levee setback project, funding is to be focused on flood reduction purpoes. By relocating the levee, flood risks as well as future repair costs for the Flood Control District are reduced. |
| 124 | WLFL8 LOWER RUSSELL ACQ KENT | Green | Agreement | $1,059,834 | $1,023,656 | ($36,178) | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $1,023,656 | Kent. Acquisitions by the City of Kent for the Lower Russell levee setback project. |
| 125 | WLFL8 LWR GRN R CORRIDOR PLAN/EIS | Green | FCD Const | $233,117 | $1,743,249 | $1,510,132 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $1,743,249 | Kent. Lower Green River Corridor Planning and Environmental Impact Statement. |
| 126 | WLFL8 LWR RUSSELL LEVEE SETBACK | Green | FCD Const | $12,147,579 | $17,462,534 | $5,314,955 | $26,447,505 | $4,116,794 | $6,358,982 | $12,710 | $0 | $0 | $36,935,991 | | | $54,398,525 | Kent. Remove and replace the existing flood containment system of levee and revetments 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. |
| 127 | WLFL8 MILWAUKEE LEVEE #2-KENT | Green | Agreement | $296,589 | $19,400,000 | $19,103,411 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $19,400,000 | Kent. Prepare an analysis and study of design and construction alternatives to provide flood protection, scour protection, enable levee certification and secure necessary land rights. |
| 128 | WLFL8 OLD JEFFS FARM REVETMENT | Green | FCD Const | $221,298 | $826,802 | $605,504 | $50,525 | $3,040,810 | $81,863 | $0 | $0 | $0 | $3,173,198 | | | $4,000,000 | Auburn. 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. |
| 129 | WLFL8 GREEN SCOUR REPAIR 2017 | Green | Agreement | $47,524 | $150,000 | $102,476 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $150,000 | Auburn. 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. |
| 130 | WLFL8 GREEN R IMPROVEMENT 2024 | Green | Agreement | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $100,000 | $0 | $100,000 | | | $100,000 | Auburn. 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. |
| 131 | WLFL8 PORTER LEVEE | Green | FCD Const | $720,000 | $720,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $720,000 | Auburn. 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. |
| 132 | WLFL8 RUSSELL RD UPPER KENT | Green | Agreement | $6,054,711 | $6,082,173 | $27,462 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $6,082,173 | Kent. 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-steepened slopes and therefore lack adequate structural stability to provide adequate safety. |
| 132 | WLFL8 S 106TH ST DRAINAGE IMPVMNT | Green | Agreement | $0 | | $0 | $451,000 | $0 | $0 | $0 | $0 | $0 | $451,000 | | | $451,000 | Burien: Replace an existing damaged and undersized pipe that runs under eleven properties to prevent stormwater flooding. |
| 133 | WLFL8 S 180TH ST BRIDGE FLOODWALL EXT | Green | Agreement | $0 | $65,376 | $65,378 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $65,378 | Tukwila. The project will increase the height of a flood wall to provide approximately 30" of additional flood protection. |
| 134 | WLFL8 SIGNATURE PT REVETMENT KENT | Green | Agreement | $89,843 | $300,000 | $210,157 | $1,445,000 | $26,777,500 | $26,777,500 | $0 | $0 | $0 | $55,000,000 | | | $55,300,000 | Kent. Project provides increased level of protection to 1.5 miles of Lower Green River Corridor. Alternative selected by Executive Committee. |
| 135 | WLFL8 TITUS PIT RVTMNT 2018 REPAIR | Green | Agreement | $167,738 | $250,000 | $82,262 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $250,000 | Kent. 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. |
| 136 | WLFL8 TUK-205 RATOLO FLOODWALL | Green | FCD Const | $0 | $0 | $0 | $0 | $0 | $1,500,000 | $300,000 | $0 | $0 | $1,800,000 | | | $1,800,000 | Tukwila. 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. |
| 137 | WLFL8 TUK-205 GUNTER FLOODWALL | Green | FCD Const | $0 | $0 | $0 | $2,000,000 | $16,250,000 | $16,250,000 | $0 | $0 | $0 | $34,500,000 | | | $34,500,000 | Tukwila. New project to implement interim SWIF adopted by Board of Supervisors. This project will construct a facility to bring this levee segment in compliance with certification requirements for structural stability and raise the levee to roughly the 500 year event. |
| 137 | WLFL8 TUK-205 USACE GACO-SEGALE | Green | FCD Const | $762,960 | $15,732,416 | $14,969,458 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $15,732,418 | Tukwila. 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 is the local share of 1/3 of total cost. Requires cooperation agreement. |
| 138 | WLFLS SOUTH PARK PUMPSTATION | Seattle | Agreement | $1,819,777 | $1,787,004 | ($32,773) | $4,717,996 | $0 | $0 | $0 | $0 | $0 | $4,717,996 | | | $6,505,000 | Seattle. 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. |

| No. | Title | Basin | Type of project | 2018 Inception to Date Expenditure | 2019 Inception to Date Budget | 2019 Available Budget | 2020 Requested | 2021 Forecasted | 2022 Forecasted | 2023 Forecasted | 2024 Forecasted | 2025 Forecasted | 6-Year CIP Total | CIS Year 7-10 | CIS 10+ Year | Project Life Total | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 139 | WLFLS PUGET WAY CULVERT | Seattle | Agreement | $0 | $1,800,000 | $1,800,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $1,800,000 | Seattle. This project will replace an aging and undersized creek culvert under Puget Way SW in Seattle. |
| 140 | WLFLS S PARK DRAINAGE IMPROVEMENTS | Seattle | Agreement | $412,995 | $1,000,000 | $587,005 | $9,075,000 | $7,030,000 | $0 | $0 | $0 | $0 | $16,105,000 | | | $17,105,000 | Seattle. 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. |
| 141 | WLFL8 TUKWILA RVTMT 2019 REPAIR | Green | FCD Const | $0 | $500,000 | $500,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $500,000 | Tukwila. Erosion and slumping of Tukwila Trail revetment caused by the recent Green River flood resulted in approximately 200 feet of damage to the revetment. |
| 142 | **Green-Duwamish Subtotal** | | | $51,795,409 | $115,841,988 | $64,046,578 | $53,280,510 | $85,805,463 | $76,741,492 | $10,806,094 | $8,565,231 | **$5,092,073** | $240,290,863 | $0 | $0 | $356,132,852 | |
| 143 | | | | | | | | | | | | | | | | | |
| 144 | | | | | | | | | | | | | | | | | |
| 145 | WLFL9 212TH AVE SE @ SR 164 FLD IMPRVMNT | Green | Agreement | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $190,000 | $190,000 | | | $190,000 | Enumclaw. Improve the drainage system to alleviate neighborhood flooding. May require improvements outside of the road right-of-way. |
| 144 | WLFL9 212TH AVE SE MITIGATION | White | Agreement | $0 | $0 | $0 | $29,000 | $36,000 | $0 | $0 | $0 | $0 | $65,000 | | | $65,000 | Enumclaw. TBD |
| 145 | WLFL9 ANDERSON PARK ACQUISITION | White | FCD Acqu/Elev | $0 | $100,000 | $100,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $100,000 | Enumclaw. Park is split by the White River; acquire undevelopable and inaccessible southern portion of park in Pierce County from the City of Enumclaw. |
| 146 | WLFL9 BUTTE AVE FLOOD MITIGATION | White | Agreement | $194,089 | $470,000 | $275,911 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $470,000 | Pacific. This project will reduce flood risks to residences and businesses in the Cities of Pacific and Algona 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. |
| 147 | WLFL9 COUNTYLINE TO A STREET | White | FCD Const | $23,828,084 | $24,004,419 | $176,335 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $24,004,419 | Tukwila. 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. |
| 148 | WLFL9 RIGHT BANK LEVEE SETBACK | White | FCD Const | $12,234,992 | $13,843,157 | $1,608,165 | $295,835 | $973,966 | $7,172,705 | $8,508,038 | $136,895 | $0 | $17,087,439 | | | $30,930,596 | Pacific. 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. |
| 149 | WLFL9 SLIPPERY CREEK ACQ | White | FCD Acqu/Elev | $10,377 | $180,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $180,000 | Greenwater. In mid-2018 budget reallocation, funding was authorized to acquire a vacant property located outside flood hazard area on the north side of Highway 410. Subsequent site visits identified multiple unpermitted structures and a well; additional funding necessary to complete demolition and asbestos abatement at a remote and inaccessible location. |
| 150 | WLFL9 CHARLIE JONES US CULVERT | White | Agreement | $84,413 | $190,000 | $105,587 | $400,000 | $100,000 | $0 | $0 | $0 | $0 | $500,000 | | | $690,000 | Auburn. This project will analyze culvert replacement and road-raising options and implement the preferred option. |
| 151 | WLFL9 CHARLIE JONES DS CULVERT | White | Agreement | $0 | $0 | $0 | $0 | $150,000 | $1,500,000 | $0 | $0 | $0 | $1,650,000 | | | $1,650,000 | Auburn. This project will analyze culvert replacement and road-raising options and implement the preferred option. |
| 152 | WLFL9 STUCK R DR 2019 REPAIR | White | FCD Const | $0 | $200,000 | $200,000 | $446,374 | $0 | $0 | $0 | $0 | $0 | $446,374 | | | $646,374 | Auburn. 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. |
| 153 | **White Subtotal** | | | $36,351,955 | $38,987,576 | $2,465,998 | $1,171,209 | **$1,259,966** | $8,672,705 | $8,508,038 | $136,895 | $190,000 | $19,938,813 | $0 | $0 | $58,926,389 | |
| 154 | | | | | | | | | | | | | | | | | |
| 155 | | | | | | | | | | | | | | | | | |
| 156 | WLFLX CORRIDOR PLN DESIGN/CONST PLACEHOLD | Countywide | FCD Const | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $0 | Placeholder for corridor plan implementation project(s) |
| 157 | **Countywide Corridor Plan Imp Subtotal** | | | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | **$0** | $0 | $0 | |
| 158 | | | | | | | | | | | | | | | | | |
| 159 | | | | | | | | | | | | | | | | | |
| 160 | WLFLG FLOOD REDUCTION GRANTS | Countywide | Grant | $8,993,154 | $17,852,257 | $8,859,103 | $5,880,201 | $3,363,133 | $3,448,863 | $3,531,622 | $3,612,948 | $3,693,134 | $23,529,901 | | | $41,382,158 | Competitive grant program for flood reduction projects. Increases as a proportion of total FCD tax revenue. |
| 161 | WLFLG WRIA GRANTS | Countywide | Grant | $20,647,848 | $32,303,948 | $11,656,100 | $4,810,172 | $4,939,566 | $5,072,440 | $5,208,889 | $5,349,008 | $5,492,896 | $30,872,971 | | | $63,176,919 | Cooperative Watershed Management Grant Program; priorities recommended by watershed groups. Increase based on assumed inflation rate. |
| 162 | WLFLM EFFECTIVENESS MONITORING | Countywide | FCD Const | $2,385,821 | $2,929,221 | $543,400 | $330,232 | $890,956 | $834,056 | $892,524 | $804,751 | $585,512 | $4,338,030 | | | $7,267,251 | Evaluation of capital projects to determine effectiveness and identify project design improvements. |
| 163 | WLFLO SUBREGNL OPPRTNTY FUND | Countywide | Grant | $34,916,901 | $55,311,183 | $20,394,282 | $6,091,017 | $6,255,428 | $6,414,885 | $6,568,817 | $6,720,084 | $6,869,230 | $38,919,461 | | | $94,230,644 | Allocation to all King County jurisdictions for flooding, water quality, or watershed management projects. Increases as a proportion of total FCD tax revenue. |
| 164 | WLFLX CONST MATERIALS STOCKPILE | Countywide | FCD Const | $0 | $500,000 | $500,000 | $0 | $0 | $0 | $0 | $0 | $0 | $0 | | | $500,000 | Stockpile role for future flood damage repairs. |
| 165 | WLFLX CENTRAL CHARGES | Countywide | FCD Const | $748,397 | $1,011,493 | $263,096 | $100,000 | $142,592 | $146,870 | $151,276 | $155,815 | $160,489 | $857,042 | | | $1,868,535 | Central charges related to the FCD's capital fund. |
| 166 | WLFLX FLOOD EMERGENCY CONTGNCY | Countywide | FCD Const | $419,042 | $1,050,917 | $631,875 | $0 | $250,000 | $250,000 | $250,000 | $250,000 | $250,000 | $1,250,000 | | | $2,300,917 | Contingency for emergency response actions during a flood event. |
| 167 | **Countywide Subtotal** | | | **$68,111,164** | $110,959,019 | **$42,847,856** | $17,211,622 | $15,841,675 | $16,167,114 | $16,603,128 | $16,892,606 | $17,051,261 | $99,767,405 | $0 | $0 | **$210,726,424** | |
| 168 | | | | | | | | | | | | | | | | | |
| 169 | **Grand Total** | | | **$268,705,708** | **$420,273,031** | **$151,197,700** | **$87,904,383** | **$129,763,124** | **$124,808,033** | **$54,413,034** | **$56,262,793** | **$53,590,266** | **$506,741,633** | **$121,250,000** | **$121,300,000** | **$1,169,564,864** | |