



KING COUNTY

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

Signature Report

November 9, 2016

FCD Resolution

Proposed No. FCD2016-20.3

Sponsors

1 A RESOLUTION relating to the operations and finances of
2 the District, adopting the 2017 budget and authorizing
3 improvements.

4 WHEREAS, pursuant to RCW 86.15.140, the King County Flood Control Zone
5 District ("District") held a public hearing on the proposed 2017 budget of the District on
6 November 7, 2016; and

7 WHEREAS, the board of supervisors ("Board") desires to adopt the District's
8 2017 budget; and

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

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

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

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

23 WHEREAS, the District Board desires to approve improvements in the District's
24 2017 budget that are not in the District Comprehensive Plan, or that have been modified
25 by the District's 2017 budget, in accordance with RCW 85.15.110; now, therefore,

26 BE IT RESOLVED BY THE BOARD OF SUPERVISORS OF THE KING
27 COUNTY FLOOD CONTROL ZONE DISTRICT:

28 SECTION 1. The Board hereby adopts the 2017 Budget for the District, as set
29 forth in Attachments A ("Work Program"), B ("Annual Budget"), C ("Annual Operating
30 Budget"), D ("2017 Capital Budget"), E ("2017 - 2022 Capital Budget"), F ("2017
31 Annual District Oversight Budget"), G ("2017 Subregional Opportunity Fund
32 Allocations") and H ("2017-2022 Capital Budget Project List"); provided that King
33 County shall submit predesign reports for capital projects to the District executive
34 director, and shall seek approval from the executive director of project charters.
35 Furthermore, King County shall provide to the District executive committee thirty
36 percent design project reports for authorization to proceed with sixty percent design.

37 SECTION 2. The Board approves the extension, enlargement, acquisition or
38 construction, as applicable, of the improvements that are included in the District
39 Comprehensive Plan, that are included in the District Comprehensive Plan but have been
40 modified by Attachments C, D and H to this resolution, or that are not included in the
41 District Comprehensive Plan but are identified in Attachments C, D and H to this
42 resolution (collectively, the "improvements"). The District Comprehensive Plan includes

43 the streams or water courses upon which the improvements will be enlarged, extended,
44 acquired or constructed. The Board determines that the improvements generally
45 contribute to the objectives of the District Comprehensive Plan and will be of benefit to
46 the county as a whole.

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

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

53 SECTION 5. The Board authorizes the executive committee to modify project
54 budgets and schedules identified in Attachment H; provided that all changes must remain
55 within the identified basin and overall basin budget allocation as identified in
56 Attachments C and D.

57 SECTION 6. Funds realized from the sales of the River's Edge property in the
58 City of Kent which the County purchased on behalf of the District for the Briscoe
59 Desimone Levee Setback Project shall be allocated to the Lower Russell Road Levee
60 Setback Project.

61 SECTION 7. Water and Land Resources Division is directed to identify financial
62 and other barrier to participation in the District's Home Elevation Program, and to
63 develop options and make recommendations to the District Executive Committee by
64 March 31, 2017 for a pilot program to assist landowners with their financial participation

65 in the District's home Elevation program taking into account public benefit, equity, and
66 social justice.

67 SECTION 8. The Board directs the Water and Land Resources Division to work
68 with the King County Sheriff's Office King County Sheriff Marine Rescue Dive Unit to
69 prepare an analysis of the level of effort and costs for services performed by the King
70 County Sheriff Marine Rescue Dive Unit on behalf of the District including large wood
71 investigations and response, river safety related to capital construction projects,
72 inspections of flood facilities, and emergency response and rescues. A report on these
73 documented costs is due to the Executive Committee as part of the mid-year budget.

74 SECTION 9. The Board authorizes up to \$41,250 in the Water and Land
75 Resources Division Operating Budget for marine equipment, boat engine or proportionate
76 share of a new vessel for use by the King County Sheriff Marine Rescue Dive Unit in its
77 performance of services on behalf of the District.

78 SECTION 10. The Board directs the Water and Land Resources Division to
79 provide written quarterly progress reports to the District Executive Committee on
80 groundwater monitoring and technical studies of Government Canal in the vicinity of
81 White River Estates in the City of Pacific.

82 SECTION 11. The Board directs the District Executive Director to work with the
83 Water and Land Resources Division to propose a budget development policy by March
84 31, 2017 for consideration by the District Board of Supervisors that will define the steps
85 in the budget process for the mid-year and annual budget, the format for materials to be
86 provided by Water and Land Resources to the District, the timetables for submittals, the

87 reconciliation of the Flood District budget with the King County Executive's budget for
88 the Division, and integration of the policy into the District's Operating Rules.

89 SECTION 12. The Board directs the Water and Land Resources Division to
90 prioritize the following capital projects for implementation in the 2017-2022 capital
91 improvement program as a condition for using District funds to pay for six new capital
92 project staff positions and one administrative position: Flood damage repair projects; Jan
93 Road Levee construction; Cedar River Trail Site "A" Repair; South 277th Revetment
94 construction; Nintendo Levee Setback; Ribary Creek Construction; Tolt River Road
95 Improvements (four sites), and a new capital project to be identified by the Board through
96 the Middle Fork Snoqualmie Corridor Plan.

97 SECTION 13. The Board directs the Water and Land Resources Division to
98 provide a monthly report to the District Executive Committee on the status of recruitment
99 and hiring of all vacant and newly authorized positions funded by the District. If
100 positions remain unfilled at the time of the mid-year budget in July 2017, the District may
101 consider reallocating the Operating Budget to achieve project delivery goals through
102 alternative contracting methods.

103 SECTION 14. The Board directs the Water and Land Resources Division to
104 provide a report to the District Executive Committee on strategies to mitigate flood
105 hazards on the right bank of the Cedar River between River Mile 3.3 and 4.3 affecting the
106 Maplewood neighborhood as part of the Cedar River Corridor Plan.

107 SECTION 15. The District directs the Water and Land Resources Division to
108 provide the District Executive Committee with a scope of work, schedule, and budget by

109 March 31, 2017, for obtaining a General Programmatic Hydraulic Project Approval for
110 large wood removal on the Cedar River.

111 SECTION 16. Section 3.6 of the interlocal agreement between the District and
112 King County provides that King County shall notify the District executive director in
113 writing if the county needs to modify or reprioritize capital projects. King County's
114 notifications to the District executive director should include information regarding
115 variations within project budgets of more than twenty percent in the "acquisition,"

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

118

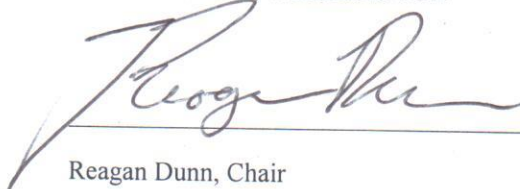
FCD Resolution was introduced on and passed as amended by the King County Flood Control District on 11/7/2016, by the following vote:

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

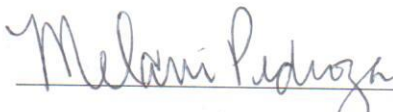
No: 0

Excused: 0

KING COUNTY FLOOD CONTROL DISTRICT
KING COUNTY, WASHINGTON


Reagan Dunn, Chair

ATTEST:


Melani Pedroza, Acting Clerk of the Council

Attachments: A. 2017 Budget Work Program, 11/7/16, B. 2017 Annual Budget, 11/2/16, C. 2017 Annual Operating Budget, 11/2/16, D. 2017 Annual Capital Budget, 11/2/16, E. 2017-2022 Six Year CIP, 11/2/16, F. 2017 Annual District Oversight Board, 11/2/16, G. 2017 Subregional Opportunity Fund Allocations, 11/2/16, H. 2017-2022 Six Year CIP Project Allocations, 11/2/16

King County Flood Control District 2017 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)

2017 Priorities:

Management & Budget

- Create budget development policy
- Seek state funds for I-90 and Lower Russell Road
- Seek federal assistance with US Army Corps issues
- Align capital expenditure schedules
- Provide budget issue requests to Advisory Committee

Policy Development

- Equity & Social Justice Policy
- Guidance on using District Funds for Recreational Objectives

Capital Projects

- Establish protocols for capital project scope approval by District – project charters, alternatives analysis report, 30% design, and 60 % design.
- 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

- Update facility inventory and real estate records
- Address property title issues

Planning

- South Fork Snoqualmie Plan Approval
- Tolt River Plan Approval
- Snoqualmie Middle Fork Planning Process
- Cedar River Plan Approval
- Lower Green River Planning Process
- 2018 Flood Hazard Management Plan Update Process

Grants

- Monitor Opportunity Fund Project Implementation
- Monitor WRIA Grant Progress and Identify Leveraging Opportunities
- Outreach for Flood Reduction Grants Program

Communications

- 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
- Web Site Upgrades

Evaluation and Effectiveness

- Report on nexus of recreation and flood project impacts
- Report on climate change progress with University of Washington partnership

King County ILA Service Provider Work Plan

Resource Management, Annual Maintenance, and Facility Monitoring

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

Annual Maintenance Program:

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

Flood Protection Facility Assessment and Monitoring Program

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

Facility Maintenance and Repair Program

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

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

- Coordinate sediment management program/project actions to reduce flood risks.
- Coordinate large woody debris program/project actions to reduce flood risks.

- Monitor other in-stream hazards and coordinate associated flood risk reduction actions.

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

Program Summary: Manage repetitive loss area mitigation coordination, public outreach, flood hazard management planning, and grant preparation. Repetitive loss mitigation is generally achieved by buying or elevating at-risk homes. While buyouts and elevations are funded via the capital program, the planning, prioritization, and the Federal Emergency Management Agency (FEMA) grant submittals are funded via the operating program. Most operating costs for grant development are reimbursable if the FEMA grant is awarded. Public outreach for specific capital projects is funded through the capital program; basin-wide outreach regarding on-going and planned capital projects is considered an operating expense.

Repetitive Loss Area Mitigation Planning

Program

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

Public Outreach and Communications Program

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

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

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

Grants Program

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

- Develop grant applications for FEMA hazard mitigation assistance grants as well as post-flood funding. Develop other grant applications to support capital project implementation.

- Administer the biennial Washington State Department of Ecology Flood Control Assistance Account Program (FCAAP) grant process and track successful grants to ensure timely reporting.
- Coordinate and assist with preparation of applications for all state and federal flood hazard mitigation grant processes.

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

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

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

Flood Hazard Studies, Maps, and Technical Studies

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

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

Flood Preparation, Flood Warning Center and Post Flood Recovery Program

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

Flood Preparedness

- Coordinate flood hazard education program, communication tools (brochures, web content, customer service bulletins, etc.) to increase the awareness of flood risks and prepare citizens for flood events. This includes base-level participation in the regional Take Winter by Storm campaign.
- Track and disseminate flood hazard technical information to other King County departments (Department of Transportation (DOT), Department of Permitting and Environmental Review (DPER), etc.) and other local, state, and federal agencies.
- Coordinate annual flood awareness month and associated public information program strategy (meetings, websites, other) designed to increase the public's awareness of locally available resources and information.

Regional Flood Warning Center

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

Post-Flood Recovery Operations Program

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

Program Management, Supervision: Finance, Budget and General Administration

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

Management and Supervision Tasks

- Manage the technical and business operations of the District work program and staff.
- Develop annual operating and capital budgets, work programs and staff allocations.
- Provide supervision, technical assistance and quality control/assurance to staff.
- Carry out responsibilities for hiring, management performance, developing training expectations and recommending effective discipline and termination.
- Ensure programs and projects are completed to carry out the goals and objectives of the River and Floodplain Management Program.
- Work collaboratively with other government and regulatory agencies, departments within King County, and the public to address environmental policies and issues related to floodplain management principles, goals and objectives.

Finance and Budget Operations

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

General Administration

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

Compliance

- Provide access to records including but not limited to contracts, invoices, timesheets.
- Respond to annual District audits, King County Council audits, state audits, grant-related audits, and quarterly procurement audits.
- File semi-annual and Annual Report with the Board of Supervisors and Executive Director in printed and electronic form for posting to the District website.

- Notify Executive Director in writing when project scope, budget or schedule change from the adopted capital improvement plan.
- Notify Executive Director of grant requests 30 days prior to grant due date or submittal
- Notify Executive Director of grant award within 10 days of grant approval.
- Work with Executive Committee and Executive Director to support the District's work with Advisory Committee.

King County Flood Control District Program Implementation

Program Summary: Implement flood hazard management programs and coordinate capital improvement projects for the District. Teams of staff are organized by river basin, supported by countywide technical services and countywide planning services, and will be responsible for identifying, implementing, and tracking flood risk reduction program and project actions within a given basin. Staff also coordinate four basin technical committees with partner jurisdictions and maintain relationships with communities and other agencies.

Basin Team and Basin Technical Committee Program

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

King County Flood Control District Advisory Committee Coordination

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

Flood Control District Committee Support

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

Floodplain Management Planning

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

Agriculture Needs Assistance

- Provide technical and modeling assistance and permitting support for farm pad proposals.
- Manage compensatory storage bank.
- Provide assistance to identify and pursue mitigation opportunities for barn and other farm structure elevations.
- Implement recommendations of the Farm/Flood Task Force as directed by District Executive Committee.
- Coordinate outreach to farmers and the King County Agriculture Commission to gather input on the unique needs of agriculture lands within flood hazard areas.

Capital Improvement Program Implementation

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

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

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

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

repetitive loss properties and other at-risk developments.

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

- Scope and Concept
 - Identify problem, alternatives, recommended solution and project goals.
- Feasibility
 - Identify and conduct studies, analysis, cost estimates, resource needs, landowner issues.
- Acquisition
 - Obtain the necessary property rights to perform the work.
- Design and Permitting
 - Address all elements of the project (e.g. geomorphic, constructability)
 - Complete all federal, state and local permitting requirements (e.g. Corps, Endangered Species Act (ESA))
 - Survey
 - Conduct pre- and post-construction ("as-built") survey
 - AutoCAD
 - Develop design plan set
 - Hydraulic Modeling
 - Conduct pre- and post-project modeling
 - Complete Letter of Map Revision (LOMR) for constructed projects, when/if warranted
 - Ecological
 - Conduct pre- and post-construction monitoring
 - Complete pre-project feasibility studies/analysis
 - Provide project design support
 - Complete biological assessments/evaluations
 - Individual
 - Programmatic
 - Complete Section 7 ESA consultation
 - Coordinate or support permitting and permit agency outreach
 - State Environmental Policy Act (SEPA)
 - Complete individual project SEPA review
 - Complete programmatic SEPA review
 - Geotechnical Engineering Support/Geologist/Geotechnical
 - Provide sediment management monitoring, analysis and modeling
 - Conduct pre- and post-construction monitoring
 - Conduct pre-project feasibility studies/analysis
 - Provide project design support

- Engineering (may include Project Management function as well)
 - Lead design engineer for projects
 - Manage construction of projects
 - Obtain resources for projects; make task assignments
 - Track and report project scope, schedule, and budget
 - Develop plan set for construction, or bid documentation support
 - Provide overall project quality assurance and quality control oversight
- Project Management
 - Obtain resources for projects; make task assignments
 - Track and report project scope, schedule, and budget
 - Provide overall project quality assurance and quality control oversight
 - Monitoring and Adaptive Management 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

2017 Annual Budget

Attachment B

11/2/16

Program	2015 Actuals	2016 Approved	2016 Revised	2017 Requested
Flood District Administration	666,522	661,932	671,932	692,090
Maintenance and Operation	8,001,129	9,937,300	9,937,300	10,912,177
Construction and Improvements	47,021,985	26,113,456	119,111,445	59,859,737
Bond Retirement and Interest	\$0	\$0	\$0	\$0
Total	55,689,636	36,712,688	129,720,677	71,464,004
Projected Capital Reserves - Cash Fund Balance ¹	51,306,989	56,604,639	59,532,959	62,090,510
Projected Capital Reserves - Budgetary Fund Balance ²	(37,238,694)	(9,642,000)	(14,079,618)	(19,834,190)

¹ The cash fund balance assumes an expenditure rate of 39% of the capital budget in 2017, 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

2017 Annual Operating Budget

Attachment C

11/2/16

	2015 Actuals	2016 Approved	2016 Revised	2017 Requested
Annual Maintenance	\$1,812,268	\$2,333,300	\$2,333,300	\$2,589,281
Flood Hazards Plan, Grants, Outreach	\$431,337	\$425,000	\$425,000	\$318,123
Flood Hazard Studies, Maps, Technical Services	\$815,938	\$1,204,000	\$1,204,000	\$1,304,619
Flood Preparation, Flood Warning Center	\$435,500	\$463,000	\$463,000	863,033
Program Management, Supervision, Finance, Budget	\$902,152	\$791,400	\$791,400	\$951,992
Program Implementation	\$931,006	\$1,629,600	\$1,629,600	\$1,165,633
Overhead / Central Costs	\$2,672,928	\$2,699,000	\$2,699,000	3,327,496
District Planning, Outreach, Policy Technical Services	\$0	\$392,000	\$392,000	\$392,000
Total	\$8,001,129	\$9,937,300	\$9,937,300	\$10,912,177

King County Flood Control District

2017 Annual Capital Budget

Attachment D

11/2/16

Basin	Acquisition	Design	Construction	Contingency	Total
Snoqualmie River Basin	\$3,324,538	\$1,100,311	\$9,706,497	\$158,814	\$14,290,160
Cedar River Basin	\$5,386,500	\$951,115	\$2,804,106	\$0	\$9,141,721
Green River Basin	\$10,184,453	\$2,949,025	\$540,422	\$60,000	\$13,733,899
White River Basin	(\$375,000)	\$769,785	\$5,212,688	\$0	\$5,607,473
Seattle	\$0	\$0	\$3,810,756	\$0	\$3,810,756
Effectiveness Monitoring	\$0	\$357,399	\$0	\$0	\$357,399
Countywide Corridor Plan Implementation	\$0	\$0	\$0	\$0	\$0
Countywide Miscellaneous	\$0	\$0	\$0	(\$274,646)	(\$274,646)
Opportunity Fund	\$0	\$0	\$5,743,771	\$0	\$5,743,771
Grant Fund	\$0	\$0	\$3,058,908	\$0	\$3,058,908
WRIA Grant Funding	\$0	\$0	\$4,390,296	\$0	\$4,390,296
Total	\$18,520,490	\$6,127,635	\$35,267,444	(\$55,832)	\$59,859,737

King County Flood Control District

2017 - 2022 Six-Year CIP

Attachment E

11/2/16

Name	2016 Adopted	2016 Revised	2017 Proposed	2018	2019	2020	2021	2022	2017 - 2022 Total
Snoqualmie River Basin	10,654,014	22,344,540	14,290,160	13,346,352	17,775,785	9,653,617	12,558,534	3,929,407	71,553,855
Cedar River Basin	(504,580)	19,576,033	9,141,721	6,955,464	8,470,887	6,097,428	3,720,297	3,140,634	37,526,431
Green River Basin	2,562,152	29,069,161	13,733,899	13,776,463	33,956,412	6,386,989	5,889,650	3,358,500	77,101,913
White River Basin	(284,050)	12,696,393	5,607,473	1,536,321	6,722,036	6,571,371	115,927	200,000	20,753,128
Seattle Projects	500,000	1,626,665	3,810,756	1,504,244	1,000,000	1,005,000	-	-	7,320,000
Effectiveness Monitoring	-	422,038	357,399	895,779	332,985	533,242	219,566	634,010	2,972,981
Countywide Corridor Plan Im	71,305	142,610	-	2,489,775	2,452,537	11,213,074	9,430,286	2,010,077	27,595,749
Countywide Miscellaneous	250,000	864,646	(274,646)	316,225	325,202	334,437	343,940	353,717	1,398,875
Subregional Opportunity Fun	5,564,783	15,247,689	5,743,771	5,828,701	5,945,440	6,083,773	6,221,932	6,362,319	36,185,936
Grant Fund	2,991,819	7,892,560	3,058,908	3,133,710	3,196,473	3,270,846	3,345,125	3,420,602	19,425,664
WRIA Grant Funding	4,308,013	9,229,110	4,390,296	4,504,883	4,622,460	4,743,106	4,866,901	4,993,928	28,121,574
Total	26,113,456	119,111,445	59,859,737	54,287,917	84,800,217	55,892,884	46,712,158	28,403,194	329,956,106

King County Flood Control District

2017 Annual District Oversight Budget Attachment F

11/2/16

	2016 Adopted	2016 Revised	2017 Proposed
Management & Support	\$265,675	\$265,675	\$273,645
Rent and Equipment	\$11,255	\$11,255	\$11,593
Legal Services	\$92,292	\$92,292	\$95,061
Accounting	\$84,872	\$94,872	\$97,718
State Auditor	\$19,000	\$19,000	\$19,570
Other Professional Services	\$90,000	\$90,000	\$92,700
Expenses	\$16,883	\$16,883	\$17,389
Insurance	\$81,955	\$81,955	\$84,414
Total	\$661,932	\$671,932	\$692,090

King County Flood Control District

2017 Subregional Opportunity Fund Allocations Attachment G

11/2/16

Jurisdiction	Opportunity Fund Allocation	Project Name	Project Description
Algona	\$10,000	DEFERRING	
Auburn	\$94,667	DEFERRING	
Beaux Arts	\$10,000	SE 29th St Broken Pipe Replacement	A spot repair at both 5 feet and 164 feet upstream of Catch Basin #543 is required to fix the broken stormwater pipe.
Bellevue	\$995,758	Meyersbauer Basin/NE 8th St & 100th Ave	The primary purpose of the project is to reduce the frequency of flooding at the intersection of NE 8th St. and 100th Ave NE. This project will install approximately 4,700 linear feet of new storm drainage pipe. The new pipeline will replace existing undersized pipes and reroute the flow to a bypass line that discharges to Lake Washington.
Black Diamond	\$10,000	Conveyance Improvement	
Bothell	\$59,837	DEFERRING	
Burien	\$69,078	DEFERRING	
Carnation	\$10,000	City of Carnation Stormwater Facility	Amendment to continue storm drain maintenance and cleaning.
Clyde Hill	\$29,788	Stormwater Retention	Amendment to continue miscellaneous storm water retrofit projects.
Covington	\$26,814	DEFERRING	
Des Moines	\$39,836	DEFERRING	
Duval	\$13,358	Parkwood Estates Pond Retrofit	Amendment to add funds to existing project that will retrofit an existing pond by adding storage and water quality components. The retrofit will require a full reconstruction of the facility and addition of bio-filtration swales to improve water quality at the pond outlet.
Enumclaw	\$15,583	DEFERRING	
Federal Way	\$118,779	DEFERRING	
Hunts Point	\$13,287	DEFERRING	
Issaquah	\$109,002	DEFERRING	
Kenmore	\$49,612	Arrowhead Drainage Improvement	Construct a new conveyance pipe along Arrowhead Dr NE in Kenmore to eliminate frequent flooding of the road. The existing system capacity is inadequate to meet current volumes needed to prevent flooding of the roadway and adjacent steep slopes.
Kent	\$190,652	Upper Mill Creek Dam Improvements	Amendment to continue improvements to dam, including modifications to the dam's outlet pipes and spillway to meet standards, and raising the height of the dam by 5.5 feet to provide 50-acre-feet of additional flood storage within the dam's reservoir.
King County	\$500,537	Natural Drainage Flood Program	Fund sub-projects in the Natural Drainage Flood Program to implement stormwater control improvements that address flooding problems.
Kirkland	\$276,436	CDC Stormwater Drainage Treatment	Design, permit and construct replacement of the failing stormwater pipe culvert headwall
Lake Forest Park *	\$68,081	DEFERRING	
Maple Valley	\$41,492	DEFERRING	
Medina	\$46,358	Medina Park Stormwater Pond Improvements	
Mercer Island	\$149,964	Lincoln Landing Stormwater & Park Improvements Design	Amendment to add funds to existing project to improve existing stormwater ponds.
Milton	\$10,000	DEFERRING	Design improvements to Lincoln Landing, a street end park on the north shore of Mercer Island. Improvements will address an incised stormwater channel, the channel's outfall into Lake Washington, and the large concrete bulkhead that defines the shoreline.
Newcastle	\$34,426	DEFERRING	
Normandy Park	\$18,860	Purchase Street Sweeper	Purchase a newer, more efficient street sweeper.
North Bend	\$14,396	DEFERRING	
Pacific	\$10,000	DEFERRING	
Redmond	\$212,224	1) 90th and 85th Street Basin Modeling 2) 2017 Cured In Place Pipe Repairs	1) Create a hydrologic and hydraulic model for the 90th St and 85th St Basins. The model will be used to evaluate improvements to existing built and natural stormwater infrastructure, with the goal of limiting erosion, eliminating flooding, reducing maintenance, and improving water quality. 2) Cured in Place Pipe repairs to stormwater pipes at various identified locations.
Renton	\$178,628	Cedar River Gravel Removal - Final Design & Mitigation	Amendment to existing project to develop construction plans and specifications for the gravel removal project.
Sammamish	\$189,614	Zachuse Creek Fish Passage	Replace an existing undersized concrete culvert under East Lake Sammamish Parkway to make it fish passable and restore and realign approximately 200 feet of existing Zachuse Creek channel upstream of the road.
SeaTac	\$39,198	South 208th Street Drainage Repair	Drainage repair and replacement project includes replacement of two sections of failing storm pipe and stormwater manhole.
Seattle	\$2,198,653	Longfellow Creek Natural Drainage Systems Stormwater Conveyance	Provide conveyance improvements and stormwater controls to improve the Longfellow Creek watershed and provide needed drainage infrastructure. Project will provide eight 330-foot blocks of conveyance to bioretention facilities in the right-of-way and adequate conveyance to Longfellow Creek.
Shoreline	\$112,859	25th Avenue NE Flood Reduction - 60% Design & Permitting	Complete the 60% design/permitting phase of the project. Flood reduction improvements will address at least 850 feet of inadequate-capacity stream conveyance system.
Skykomish	\$10,000	DEFERRING	
Shoquimish	\$30,971	DEFERRING	
Tukwila	\$61,339	Tukwila 205 Levee Certification - Phase 2	Perform the second phase of a levee certification study for the Tukwila 205 Levee.
Woodinville	\$40,917	NE 171st Street Urban Parkway	Reconstruct portions of NE 171st St including enhancing riparian habitat and replacing undersized culverts on Woodin Creek with fish passable culverts.
Yarrow Point	\$13,764	DEFERRING	
Jurisdiction Totals			\$5,723,768
Deferrals Projects	\$800,013		
	\$4,923,755		

*The Lake Forest Park allocation is the sum of the 2017 allocation (\$33,863) and the 2016 allocation (\$34,198). The 2016 allocation was withheld from the 2016 budget in anticipation of repaying an advance Opportunity Fund award of \$300K that ultimately never occurred. This action restores the lost budget and makes Lake Forest Park whole.

No.	Title	Flood Risk %	Implement %	Type of project	2015 Inception to Date Expenditure	2016 Inception to Date Budget	2017 Requested	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected	6-Year CIP Total	Project Life Total	Comments
29	WLF1.2 SNOQUALM CORRIDOR PLAN	84%	97%	wr	\$5,522,781	\$6,800,443	\$1,277,782	\$452,218	\$742,630	\$764,909	\$675,305	\$0	\$2,635,982	\$9,435,605	Cost shared contribution to multiple levee setbacks and high priority flood risk reduction acquisitions in the Fall City area. Includes levee improvements, roadways, and other infrastructure. FCD expenditure leverages habitat restoration funding from other sources.
30	WLF1.2 LWR SNOQUALM FLD MITIGTN	FCD	FCD	acq	\$1,704,037	\$2,630,971	\$928,874	\$675,905	\$716,431	\$775,363	\$790,769	\$806,584	\$4,524,414	\$7,155,385	This project provides technical and cost-sharing assistance to residential and agricultural landowners in the Lower Snoqualmie River watershed. It includes levee improvements, roadways, and other infrastructure. FCD expenditure leverages habitat restoration funding from other sources.
31	WLF1.2 SE 18TH WAY REVEINMENT	FCD	FCD	wr	\$79,787	\$523,598	\$544,801	\$1,082,706	\$150,000	\$0	\$0	\$0	\$1,232,706	\$1,856,294	Rebuild/reinforce to protect road access to high value agriculture operations and lands. Construction scheduled for 2017.
32	WLF1.2 SE DAVID POWELL RD DOWNSTREAM	FCD	FCD	wr	\$12,081	\$1,000,000	\$887,919	\$38,456	\$0	\$0	\$0	\$0	\$38,456	\$1,038,456	FCD-requested project to reduce neighborhood isolation from flooding.
33	WLF1.2 SE FISH TARTERY RD	FCD	FCD	wr	\$15,718	\$500,000	\$484,282	\$27,605	\$0	\$0	\$0	\$0	\$27,605	\$527,905	FCD-requested project to reduce neighborhood isolation from flooding.
34	WLF1.2 DUVAL BRIDGE 1136A	FCD	FCD	wr	\$0	\$0	\$0	\$30,000	\$120,000	\$0	\$0	\$0	\$150,000	\$150,000	The foundation of the main-span pier is exposed and is vulnerable to destabilization during a flood. Add scour mitigation measures to protect flooding. Bridge crosses the Snoqualmie River at Duval and is the city's primary route.
35	WLF1.2 SE DAVID POWELL RD UPSTREAM	FCD	FCD	wr	\$0	\$0	\$0	\$250,000	\$700,000	\$1,250,000	\$0	\$0	\$2,200,000	\$2,200,000	The river is scouring the road away and David Powell Road is collapsing into the river. This project will repair an existing failing overwater and extend MSE wall to protect the road. This project will also improve the roadway.
36	WLF1.2 SNOQUALMIE VALLEY FEASIBILITY	FCD	FCD	wr	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000	\$500,000	\$500,000	Regional flooding in the Snoqualmie Valley cuts off access to eastern cities. Determine which 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.
37	WLF1.2 WOODVILLE DUVAL BR 1136B/1136E	FCD	FCD	wr	\$0	\$0	\$0	\$100,000	\$300,000	\$0	\$0	\$0	\$400,000	\$400,000	These two bridges are subject to having the roadway approach fill wash out during a flood. Excavate approaches and rebuild approaches to prevent losing approaches during flooding. A similar repair was done on Woodville-Duval Bridge No. 1136D.
38	WLF1.2 SINNEMA OUALE 2011 REPR	100%	N/A	wr	\$10,204,102	\$10,204,102	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,204,102	This project will repair approximately 800 linear feet of the Sinnema Gravel Upper levee. Protects SR 202, two regional fire spots and the Snoqualmie Valley Trail. Construction is to be completed in 2017. Project anticipated to be closed out in 2017.
39	WLF1.2 TOLT PIPELINE PROTECTION	84%	48%	wr	\$1,096,778	\$2,630,988	\$1,534,222	\$61,403,778	\$42,436	\$0	\$0	\$0	\$6,182,814	\$9,813,812	This project will repair approximately 800 linear feet of the Winthman (formerly RM 13.5) levee. Erosion along the right bank of the Snoqualmie River channel threaten to undermine the Seattle Public Utilities water supply line at this location south of Duval. Construction anticipated 2017.
40	WLF1.3 FREW LEEVEE 2016 REPAIR	Repair	N/A	wr	\$0	\$50,000	\$50,000	\$100,000	\$0	\$0	\$0	\$0	\$100,000	\$150,000	Face rock displaced along approximately 50 feet of levee face. Some core material appears to have been lost. Levee is in overtopped bank relative to upstream and downstream undamaged levee sections. Total of 1000 feet of face rock displaced from Girl Scout Camp levee. Erosion will cut off popular riverside trail. Potential impact to highway if facility branches during a major flood.
41	WLF1.3 GIRL SCOUT LEEVEE 2016 REPAIR	Repair	N/A	wr	\$0	\$20,000	\$20,000	\$40,000	\$0	\$0	\$0	\$0	\$40,000	\$80,000	Approximately 20 feet of face and toe rock dislodged from Girl Scout Camp levee. Erosion below side channel confluence with mainstem. Missing face and toe rock compromises levee integrity, increasing its vulnerability to further scour and potential failure.
42	WLF1.3 SAN SQUA LNRHOOD BUYOUT	82%	79%	acq	\$4,123,068	\$4,949,206	\$826,138	\$604,147	\$0	\$0	\$0	\$0	\$604,147	\$5,553,353	This project will buyout remaining properties and remove all homes and privately-constructed rubble levees at the upstream end of the community access road, ultimately completing project initiated 20 years ago by others. Wetland area of approximately 20 homes from high hazard areas within and just upstream and downstream of San Scout neighborhood.
43	WLF1.3 TOLT 2015 FLOOD REPAIRS	Repair	N/A	wr	\$19,937	\$800,000	\$800,000	\$22,419	\$0	\$0	\$0	\$0	\$22,419	\$922,419	Flood damage repairs from January 2015 flood event. Locations include Frew, Upper Frew, Rattenger, and Girl Scout Camp.
44	WLF1.3 TOLT CORRIDOR M/LMNTN	87%	82%	wr	\$0	\$25,232	\$25,232	\$75,000	\$879,867	\$1,717,650	\$5,037,804	\$0	\$9,145,674	\$6,170,626	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 2015-16.
45	WLF1.3 TOLT CORRIDOR PLAN	87%	82%	wr	\$836,125	\$659,560	\$122,435	\$0	\$0	\$0	\$0	\$0	\$0	\$958,560	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.
46	WLF1.3 TOLT R MILE 1.1 SETBACK	84%	79%	acq	\$4,069,360	\$5,699,606	\$1,630,246	\$318,270	\$546,363	\$0	\$0	\$0	\$640,367	\$6,348,993	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.
47	WLF1.3 TOLT R NATURAL AREA ACQ	86%	64%	acq	\$1,138,843	\$500,660	\$30,107	\$530,450	\$546,363	\$567,754	\$466,156	\$0	\$2,135,830	\$3,775,333	FCD-requested project to reduce neighborhood isolation from flooding.
48	WLF1.3 TOLT R RD ELEVATION FEASIBILITY	FCD	FCD	wr	\$0	\$250,000	\$250,000	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	This bridge has a history of scour damage. One of the arch foundations is exposed. Repair scour mitigation measures to protect the footing. It serves only one house but is a designated King County Landmark.
49	WLF1.4 RAGING R BRIDGE 1008E	FCD	FCD	wr	\$0	\$0	\$0	\$80,000	\$0	\$0	\$0	\$0	\$80,000	\$80,000	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.
50	WLF1.4 ALPINE MANOR NEIGHBORHOOD BUYOUT	78%	79%	acq	\$1,715,652	\$2,374,412	\$658,760	\$484,878	\$0	\$0	\$0	\$0	\$391,118	\$2,765,530	
51	Snoqualmie South Fort Snoqualmie Subarea				\$49,138,091	\$71,482,634	\$22,344,543	\$14,290,160	\$13,346,352	\$9,853,617	\$12,588,634	\$3,929,407	\$71,553,855	\$143,038,489	
52															
53															
54	WLF1.5 SAMMAMISH R BANK REPAIRS	Repair	N/A	wr	\$15,070	\$400,000	\$384,930	\$19,895	\$0	\$0	\$0	\$0	\$19,895	\$419,895	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 2018 and will likely require deburring trail users to adjacent roads.
55	WLF1.5 NE 8TH ST AT LAKE ALLEN OUTLET	FCD	FCD	wr	\$0	\$0	\$0	\$0	\$0	\$0	\$400,000	\$1,000,000	\$2,800,000	\$2,800,000	To address chronic flooding on this sole access roadway with approximately 200 properties, look at upstream and downstream retention/detention options, study road-raising options, prepare Concept Development Report, analyze and select best options.
56	WLF1.5 WILLOWMOOR FLOODPLAIN REST	58%	8%	wr	\$1,268,234	\$2,232,642	\$964,408	\$485,281	\$500,000	\$2,864,719	\$50,000	\$0	\$4,000,000	\$6,232,642	Willowmoor Floodplain Restoration Project seeks to reduce the frequency and duration of high lake levels in Lake Sammamish while maintaining downstream Sammamish River flood control performance and providing flood protection to the surrounding community. The project includes levee improvements, conveyance, downstream flood control, potential extreme lake level reduction, and other elements. 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 limited in the motion.
57	WLF1.6 LOWER COAL CREEK PH1	71%	48%	Agreement	\$737,768	\$1,503,576	\$765,808	\$2,275,000	\$2,457,000	\$2,311,000	\$10,000	\$0	\$7,063,000	\$8,566,576	Increase conveyance capacity at the five box culvert crossings. Disconnected local storm drainage outfall from Coal Creek to the main channel. Implementing by City of Bellevue. Expenditure forecast to be updated based on current project schedule.

No.	Title	Flood Risk %	Implement %	Type of project	2015 Inception to Date Expenditure	2016 Revised Inception to Date Budget	2016 Available Budget	2017 Requested	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected	6-Year CIP Total	Project Life Total	Comments
58	WLFL6 MICALLEEN YON CHAN IMPROV	79%	77%	Agreement	\$1,034,720	\$1,050,000	\$15,281	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,050,000	Re-establish a more natural floodplain widening for Lyon Creek and upgrade undersized culverts in the project area. Project may include high-flow bypass alternatives. Funding is 25% local share for FEMA grant, implemented by City of Lake Forest Park. Project to be closed out in 2017. Capital District capital projects.
59	WLFL7 CIR PRE-CONST STRTGC ACQ	84%	69%	acq	\$2,522,532	\$2,830,814	\$308,282	\$1,489,718	\$1,529,712	\$1,560,306	\$1,591,512	\$1,623,342	\$1,655,809	\$9,460,399	\$12,291,213	This project will acquire strategic real estate upon which several large flood protection projects will be implemented. The project will include the acquisition of property for the Johnson Lower Jones Rd levee segments. Acquisition funding reduced pending Board action on the Cedar River planning effort and the District's acquisition policy.
60	WLFL7 CEDAR CORRIDOR IMPLMNTN	76%	44%	wf	\$0	\$16,763	\$16,763	\$328,437	\$763,848	\$819,545	\$2,918,141	\$246,346	\$30,998	\$5,124,079	\$5,124,079	Project planning for corridor plan implementation project (6).
61	WLFL7 CEDAR LEVEE SETBACK FEAS STUDY	84%	69%	wf	\$1,078,763	\$1,987,587	\$908,824	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,987,587	This six-year flood risk reduction capital investment strategy will cover the Cedar River valley from Landsburg Road SE (River Mile 22) to Lake Washington. Completion of this plan is expected in September 2016.
62	WLFL7 CEDAR R REP LOSS MITGATN	74%	8%	acq	\$3,147,951	\$3,788,422	\$640,471	\$58,679	\$323,574	\$333,282	\$343,280	\$353,578	\$384,186	\$1,776,580	\$5,565,022	Acquire frequently-flooded homes. Placeholder funding until District adopts acquisition policy.
63	WLFL7 CEDAR RIVE GRAVEL REMOVAL	89%	59%	Agreement	\$948,302	\$11,728,788	\$10,780,666	\$774,117	\$325,046	\$52,035	\$84,495	\$87,030	\$89,640	\$1,442,363	\$13,171,131	Project is scheduled for 2016-2017 construction. The project will ensure the minimum required 100-year flood conveyance capacity along the lower 1.25 miles of the Cedar River. The project will provide continued flood protection to densely developed downtown Renton, including Boeing's 737 assembly plant, PACCAR's Kenworth Truck manufacturing facility, Renton Municipal Airport, residential areas and commercial properties such as The Landing. These businesses are cornerstones to the economic health of the City and the Region.
64	WLFL7 ELLIOTT BR LEVEE SETBACK	79%	55%	wf	\$2,164,884	\$2,425,408	\$260,524	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,425,408	Project is a required maintenance project for the City of Renton. The project will include the removal of gravel from the Elliott Bridge levee on both sides of the river below the Elliott 154th ST Bridge.
65	WLFL7 FRD CORRIDOR IMPLEMENTATION	84%	69%	acq	\$0	\$2,150,000	\$2,150,000	\$3,555,500	\$806,284	\$0	\$0	\$0	\$0	\$4,361,784	\$6,511,784	Pending complete of Cedar River 6-year capital investment plan (Line 57), initiate feasibility study for potential levee setbacks in the Elliott Bridge reach.
66	WLFL7 SE 16RD AVE AT 288TH CT	FCD	FCD	wf	\$0	\$0	\$0	\$150,000	\$250,000	\$400,000	\$700,000	\$0	\$0	\$1,500,000	\$1,500,000	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.
67	WLFL7 SR 189 FEASIBILITY STUDY	FCD	FCD	wf	\$0	\$0	\$0	\$260,000	\$0	\$0	\$0	\$0	\$0	\$260,000	\$260,000	To address the future threat of flooding affecting approximately 10 properties, prepare Concept Development Report to determine the feasibility of levee replacement and realigning option, and analyze upstream and downstream retention/detention impacts.
68	WLFL7 RIVERBEND MHP ACQ	76%	79%	wf	\$1,866,730	\$2,369,091	\$402,381	\$3,379,126	\$5,357,042	\$5,357,042	\$5,357,042	\$5,357,042	\$5,357,042	\$5,357,042	\$5,357,042	Project closed out. This project represents the Flood District contribution to a larger project that relocates mobile home park Rainbow Bend levee in order to slow flood velocities and reduce flood elevations in this area of the river.
69	WLFL7 RIVERBEND MHP ACQ	82%	46%	wf	\$3,379,126	\$5,357,042	\$1,977,916	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,357,042	This project represents the Flood District contribution to a larger project that relocates mobile home park Rainbow Bend levee in order to slow flood velocities and reduce flood elevations in this area of the river.
70	WLFL7 RIVERBEND MHP ACQ	82%	46%	wf	\$3,379,126	\$5,357,042	\$1,977,916	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,357,042	This project represents the Flood District contribution to a larger project that relocates mobile home park Rainbow Bend levee in order to slow flood velocities and reduce flood elevations in this area of the river.
71	WLFL8 BOEING LEVEE HT INCREASE	FCD	FCD	wf	\$1,639	\$1,639	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,639	This project represents the Flood District contribution to a larger project that relocates mobile home park Rainbow Bend levee in order to slow flood velocities and reduce flood elevations in this area of the river.
72	WLFL8 BOEING LEVEE HT INCREASE	95%	77%	Agreement	\$6,751	\$6,751	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,751	This project represents the Flood District contribution to a larger project that relocates mobile home park Rainbow Bend levee in order to slow flood velocities and reduce flood elevations in this area of the river.
73	WLFL8 BOEING LEVEE HT INCREASE	95%	77%	Agreement	\$6,751	\$6,751	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,751	This project represents the Flood District contribution to a larger project that relocates mobile home park Rainbow Bend levee in order to slow flood velocities and reduce flood elevations in this area of the river.
74	WLFL8 BRISCOE LEVEE SETBACK	82%	36%	Agreement	\$20,562,938	\$23,330,271	\$2,767,333	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$23,330,271	Floodwall construction implemented by the City of Kent. Reaches 2 and 3 mostly complete, reaches 1 and 4 under construction. Reimbursements will be complete and project closed out in 2017.
75	WLFL8 BRPS BLACK R PUMP STATION	100%	72%	wf	\$2,853,284	\$5,374,203	\$2,520,919	\$0	\$38,690	\$0	\$0	\$0	\$0	\$38,690	\$5,411,894	Expenditures here include sediment removal, fuel system upgrades, life-cycle efficiency analysis to inform future upgrades, and priority items from recently completed needs assessment (2015). New line items established below to account for discrete project elements.
76	WLFL8 BRPS CONTROL BLDG RPLCMT	100%	72%	wf	\$0	\$0	\$0	\$50,000	\$1,672,000	\$6,982,700	\$25,000	\$0	\$0	\$8,982,700	\$9,032,700	New project line previously combined as part of Line 86.
77	WLFL8 BRPS FISH PASS IMPRVMTS	100%	72%	wf	\$0	\$0	\$0	\$0	\$1,672,000	\$10,000	\$25,000	\$692,000	\$0	\$2,500,500	\$2,500,500	New project line previously combined as part of Line 86.
78	WLFL8 BRPS HIGH-USE ENGINES	100%	72%	wf	\$0	\$0	\$0	\$252,900	\$1,292,500	\$0	\$0	\$0	\$0	\$1,545,400	\$1,545,400	New project line previously combined as part of Line 86.
79	WLFL8 BRPS SUPPORT SYS UPGRADES	100%	72%	wf	\$0	\$0	\$0	\$0	\$50,000	\$147,200	\$546,400	\$597,650	\$0	\$1,441,250	\$1,441,250	New project line previously combined as part of Line 86.
80	WLFL8 PATTON BRIDGE 2015	FCD	FCD	wf	\$0	\$0	\$0	\$150,000	\$0	\$0	\$0	\$0	\$0	\$150,000	\$150,000	The river is scouring the road away and David Powell Road is collapsing into the river. This project will repair an existing failing revetment and attend MSE wall to prevent undermining of the riverbank and roadway.
81	WLFL8 SE 380 PLAT SR 164	FCD	FCD	wf	\$0	\$0	\$0	\$0	\$90,000	\$100,000	\$400,000	\$100,000	\$0	\$690,000	\$690,000	Regional flooding in the Snoqualmie Valley cuts off access to eastern cities. Determine which major floodwall projects are most cost-effective to improve in the valley with chronic flood issues impacting over 20,000 daily drivers.
82	WLFL8 SE 384 ST @ 178 AVE SE	FCD	FCD	wf	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000	\$150,000	\$150,000	These two bridges are subject to having the roadway approach fill wash out during a flood. Excavate approaches and rebuild approaches to prevent losing approaches during flooding. A similar repair was done on Woodville Duval Bridge No. 1138D.
83	WLFL8 DESIMONE USAGE 2015	100%	N/A	wf	\$1,668,225	\$1,668,225	\$0	\$63,620	\$0	\$0	\$0	\$0	\$0	\$63,620	\$1,731,845	Cost-share flood damage repair from March 2014 high flows with Corps of Engineers. Construction in 2016.
84	WLFL8 DYKSTRA USAGE 2015	100%	N/A	wf	\$54,427	\$2,000,000	\$1,945,573	\$1,255,028	\$1,788	\$0	\$0	\$0	\$0	\$1,793,320	\$708,700	Cost-share flood damage repair from March 2014 high flows with Corps of Engineers. Construction in 2016.
85	WLFL8 GREEN R PL 64-59 MITGATN	89%	72%	wf	\$3,347,684	\$4,082,557	\$714,873	\$981,430	\$500,000	\$0	\$0	\$0	\$0	\$1,481,430	\$5,543,987	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 PL64-59 program.
86	WLFL8 GREEN R PL 64-59 MITGATN	89%	72%	wf	\$3,347,684	\$4,082,557	\$714,873	\$981,430	\$500,000	\$0	\$0	\$0	\$0	\$1,481,430	\$5,543,987	New project to implement interim SWF adopted by Board of Supervisors.
87	WLFL8 HSB MUDY REPAIRMENT	95%	41%	wf	\$90,180	\$2,595,720	\$2,505,540	\$1,755,000	\$550,000	\$3,290,000	\$21,500	\$0	\$0	\$5,616,500	\$9,212,220	New project to implement interim SWF adopted by Board of Supervisors.
88	WLFL8 HSB MUDY REPAIRMENT	95%	41%	wf	\$90,180	\$2,595,720	\$2,505,540	\$1,755,000	\$550,000	\$3,290,000	\$21,500	\$0	\$0	\$5,616,500	\$9,212,220	New project to implement interim SWF adopted by Board of Supervisors.
89	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
90	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
91	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
92	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
93	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
94	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
95	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
96	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
97	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
98	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
99	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.
100	WLFL8 HSB NURSING HOME SETBACK	FCD	FCD	wf	\$0	\$38,690	\$38,690	\$174,000	\$0	\$0	\$0	\$0	\$200,000	\$181,194	\$200,000	New project to implement interim SWF adopted by Board of Supervisors.

No.	Title	Flood Risk %	Implement %	Type of project	2015 Inception to Date Expenditure	2016 Revised Inception to Date Budget	2016 Available Budget	2017 Requested	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected	6-Year CIP Total	Project Life Total	Comments
91	WLF8 PORTER LEVEE	39%	41%	wr	\$0	\$300,000	\$300,000	\$420,000	\$0	\$0	\$0	\$0	\$0	\$420,000	\$720,000	Contribute the cost of a repair (\$300,000) to a \$7 million levee setback project. By relocating the levee, future repair costs for the Flood Control District are reduced.
92	WLF8 BEDDINGHAM REACH SETBACK	68%	62%	wr	\$16,404,101	\$16,889,083	\$484,982	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,889,083	Project expenditures will continue into 2017, disburse anticipated as part of mid-year 2017 budget revision. 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 Ruess Road Upper Levee have over-steepened slopes and therefore lack adequate structural stability to provide adequate safety.
93	WLF8 RUSSELL RD UPPER KENT	92%	72%	Agreement	\$4,982,044	\$5,987,228	\$995,184	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$5,987,228	Signature Points is a reventment on the Green River between river mile 22.06 and 23.18 that does not meet the FEMA requirements for accreditation due to inadequate freeboard. This project includes development of a project charter and an alternatives analysis to select an alternative to achieve increased flood protection, embankment and toe protection in a manner that can be certified and accredited.
94	WLF8 SIGNATURE POINTE REVENTMENT	FCD	FCD	wr	\$0	\$0	\$0	\$300,000	\$0	\$0	\$0	\$0	\$0	\$0	\$300,000	This project will conduct a feasibility analysis of channel migration hazards from river mile 21.1 to 21.7. No design or construction funding at this time.
95	WLF8 S 27TH ST REVENTMENT	FCD	FCD	wr	\$5,058	\$300,000	\$294,942	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$300,000	60 feet of scour has exposed rock armor. No sign of armor loss. Interim SWIF capital project is for 0.33 miles of floodwall and toe/scour protection. Increased vulnerability to further scour and damage to facility.
96	WLF8 TUK-205 USACE GAGE REPAIR	R	N/A	wr	\$0	\$50,000	\$50,000	\$80,440	\$0	\$0	\$0	\$0	\$0	\$80,440	\$130,440	New project to implement interim SWIF adopted by Board of Supervisors.
97	WLF8 TUK-205 RATOLO FLOODWALL	FCD	FCD	wr	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,100,000	\$1,100,000	205 levee between river mile 15.75 and 15.88 is over-steepened and damaged and cannot be adequately repaired using the existing easements. This project would acquire properties landward of the damaged levee to enable a levee setback and repair of the embankment and toe scour at this outside bend. In coordination with Army Corps of Engineers PL 84-98 rehabilitation program.
98	WLF8 TUK-205 SEGAL FLOODWALL	FCD	FCD	wr	\$0	\$0	\$0	\$5,640,000	\$2,750,000	\$1,300,000	\$650,000	\$4,500,000	\$45,000	\$14,885,000	\$14,885,000	Green River Corridor Planning (under System-Wide Improvement Framework agreement with Army Corps of Engineers).
99	WLF8 USACE SWIF	FCD	FCD	wr	\$2,195,837	\$2,283,724	\$91,887	\$131,632	\$0	\$0	\$0	\$0	\$0	(\$1,887)	\$2,205,837	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.
100	WLF8 LWR GRN R CORRIDOR PLANEIS	FCD	FCD	wr	\$0	\$1,743,249	\$1,743,249	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,743,249	Permanently eliminate the risk to public safety along this reach by acquiring and removing residential structure. Placeholder funding for appraisal and/or grant match dependent on landowner.
101	Green-Duwamish Subtotal				\$53,604,027	\$82,150,316	\$28,552,290	\$13,725,869	\$19,776,483	\$33,856,412	\$6,380,969	\$5,986,650	\$3,358,500	\$77,101,913	\$159,258,229	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.
102																This project would acquire flood prone residence along the White River near the Greenwater River.
103																
104	WLF8 COUNTYLINE TO A STREET	87%	74%	wr	\$7,033,411	\$15,560,196	\$8,535,795	\$5,212,688	\$0	\$0	\$0	\$0	\$0	\$5,212,688	\$20,781,884	
105	WLF8 RED CREEK ACQUISITIONS	71%	41%	acq	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	\$100,000	
106	WLF8 RIGHT BANK LEVEE SETBACK	78%	64%	wr	\$7,595,805	\$11,381,414	\$3,785,608	\$789,785	\$1,536,321	\$6,722,036	\$6,871,371	\$115,927	\$0	\$15,715,440	\$27,036,854	
107	WLF8 WHITE - GREENWATER ACQ	68%	44%	acq	\$0	\$375,000	\$375,000	(\$375,000)	\$0	\$0	\$0	\$0	\$0	\$100,000	\$135,000	
108	White Subtotal				\$14,629,217	\$27,762,610	\$12,696,393	\$5,607,473	\$1,536,321	\$6,722,036	\$6,871,371	\$115,927	\$200,000	\$20,753,128	\$48,078,738	
109																
110																
111	WLF8 SOUTH PARK PUMPSTATION	79%	64%	Agreement	\$1,563,910	\$2,890,575	\$1,126,665	\$3,310,796	\$504,244	\$0	\$0	\$0	\$0	\$3,815,000	\$6,505,575	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.
112	WLF8 S PARK DRAINAGE IMPROVEMENTS	FCD	FCD	Agreement	\$1,563,910	\$3,190,575	\$500,000	\$500,000	\$1,000,000	\$1,000,000	\$1,005,000	\$0	\$0	\$3,505,000	\$4,005,000	The South Park Drainage Conveyance Improvements Project will install a formal conveyance system in the Pump Station.
113	Seattle Subtotal				\$1,563,910	\$3,190,575	\$1,020,665	\$3,810,796	\$1,504,244	\$1,000,000	\$1,005,000	\$0	\$0	\$7,320,000	\$10,510,575	
114																
115	WLF8 CORRIDOR PLAN DESIGN/CONST PLACEH	N/A	N/A	wr	\$0	\$142,610	\$142,610	\$0	\$2,489,775	\$2,462,537	\$11,213,074	\$8,430,386	\$2,010,077	\$27,585,749	\$27,738,359	Placeholder for corridor plan implementation project(s).
116																
117	Countywide Corridor Plan Imp Subtotal				\$0	\$142,610	\$142,610	\$0	\$2,489,775	\$2,462,537	\$11,213,074	\$8,430,386	\$2,010,077	\$27,585,749	\$27,738,359	
118																
119																
120	WLF8 FLOOD REDUCTION GRANTS	FCD	FCD	grant	\$649,222	\$8,541,782	\$7,892,560	\$3,058,808	\$3,130,710	\$3,196,473	\$3,270,846	\$3,345,125	\$3,420,602	\$19,425,684	\$27,867,446	Competitive grant program for flood reduction projects. Increases as a proportion of total FCD tax revenue.
121	WLF8 EFFECTIVENESS MONITORING	N/A	N/A	wr	\$1,439,082	\$1,861,120	\$422,038	\$567,399	\$895,779	\$322,985	\$533,242	\$219,568	\$654,010	\$2,972,881	\$4,834,101	Evaluation of capital projects to determine effectiveness and identify project design improvements.
122	WLF8 SUBURBAN OPPORTUNITY FUND	FCD	FCD	grant	\$22,691,811	\$37,939,500	\$15,747,689	\$5,743,771	\$5,828,701	\$5,945,440	\$6,083,773	\$6,221,932	\$6,362,319	\$39,198,086	\$74,125,436	Allocation to all King County jurisdictions for flooding, water quality, or watershed management projects.
123	WLF8 CENTRAL CHARGES	N/A	N/A	wr	\$407,493	\$666,053	\$374,560	\$1,304,900	\$51,000	\$52,020	\$53,060	\$54,122	\$55,204	\$332,143	\$2,020,033	Increases as a proportion of total FCD tax revenue.
124	WLF8 FLOOD EMERGENCY CONTINGENCY	N/A	N/A	wr	\$300,917	\$791,033	\$490,086	\$9,814	\$265,225	\$273,182	\$281,377	\$289,818	\$298,513	\$1,418,029	\$2,020,033	Central charges related to the FCD's capital fund.
125	WLF8 WRRA GRANTS	FCD	FCD	grant	\$9,479,849	\$18,708,959	\$9,229,110	\$4,390,298	\$4,504,883	\$4,622,460	\$4,743,106	\$4,866,801	\$4,993,928	\$28,121,574	\$46,930,533	Emergency response actions during a flood event.
126	Countywide Subtotal				\$35,052,375	\$68,708,417	\$33,656,042	\$13,275,728	\$14,079,298	\$14,422,660	\$14,965,405	\$14,997,484	\$15,764,576	\$88,105,000	\$156,813,447	Cooperative Watershed Grant Program; priorities recommended by watershed groups.
127																
128	Grand Total				\$172,251,698	\$290,846,275	\$118,594,577	\$59,859,737	\$54,287,917	\$84,809,917	\$65,892,884	\$46,712,156	\$28,403,194	\$329,995,106	\$620,002,381	Increases based on assumed inflation rate.

King County Flood Control District

2017 - 2022 Six-Year CIP Project Allocations

Attachment H

11/2/16

New Flood Damage Repairs
Grants/External Funding
Cost Share
New Green R SWIF Projects
New Roads Division Projects

New Roads Division Projects																	
No.	Title	Flood Risk %	Implement %	Type of project	2015 Inception to Date Expenditure	2016 Revised Inception to Date Budget	2016 Available Budget	2017 Requested	2018 Projected	2019 Projected	2020 Projected	2021 Projected	2022 Projected	6-Year CIP Total	Project Life Total	Comments	
1	WLE1 MILLER R RD RVTWNT 2016 REPAIR	Repair	N/A	wr	\$0	\$50,000	\$50,000	\$710,799	\$0	\$0	\$0	\$0	\$0	\$710,799	\$760,799	Damage to revetment. Very large rock removed from revetment, vertical banks and exposed subgrade in several locations totaling approximately 350 feet of damage. If not repaired, Miller River Road could be severely damaged. 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.	
2	WLE1 SKY W RVR DR FLOOD STUDY	63%	36%	wr	\$2,475	\$81,237	\$78,762	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$81,237	This project will evaluate or buyout individual structures in the South Fork Skykomish Basin to eliminate the risk of flooding or at-risk single family homes in the Town of Skykomish.	
3	WLE1 SF SKYKISH REP LOSS MIT	74%	46%	wr	\$283,576	\$567,650	\$284,074	\$390,188	\$0	\$0	\$0	\$0	\$0	\$390,188	\$608,638	Approximately 50-foot-long section of missing armor rock immediately downstream of the bridge. Further flooding may compromise or severely damage facility.	
4	WLE1 SKYKOMISH HOME BUYOUTS	65%	44%	wr	\$350	\$350	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$400,000	Three pockets of missing armor rock. 15, 10 and 75 feet wide and eroded topsoil from upper sections of the bridge. 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	WLE1 SF SKYKOMISH LB DOWN 2016 REPAIR	Repair	N/A	wr	\$0	\$150,000	\$150,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000	Old privately built facility in Timberlake Village on County property. Riverside rocky walls continue to overtop, settle and fall into the river.	
6	WLE1 SKYKOMISH LB UP 2016 REPAIR	Repair	N/A	wr	\$0	\$260,845	\$260,845	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$260,845	FCD-requested project to reduce neighborhood isolation from flooding.	
7	WLE1 TIMBER LN EROSION BUYOUTS	76%	46%	wr	\$1,267,483	\$2,354,445	\$1,086,962	\$232,068	\$656,729	\$0	\$0	\$0	\$0	\$888,797	\$3,243,242	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.	
8	WLE1 TIMBERLANE 2016 REPAIR	Repair	N/A	wr	\$0	\$52,500	\$52,500	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$52,500	Large scour hole in bank at upstream end of Mason-Thorsen Extension rock faced levee. Significant settlement and displacement of face rock has occurred. Facility is in poor condition. Scour hole in bank threatens to end-run facility and compromise levee integrity. Damage to levee face rock compromises levee integrity and facility is at risk of complete failure, especially at upstream end.	
9	WLE1 428TH AVE SE BR FEASIBILITY	FCD	N/A	wr	\$3,369	\$300,000	\$296,631	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$300,000	Phaseholder for corridor plan implementation project.	
10	WLE1 CIRCLE RVR RANCH RISK RED	N/A	N/A	wr	\$64,225	\$150,000	\$85,775	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$150,000	Project complete. Additional future mitigation work in the Upper Snoqualmie will be implemented under Upper Snoqualmie Residential Flood Mitigation project.	
11	WLE1 MASON THRSN EXT 2016 REPAIR	Repair	N/A	wr	\$0	\$240,000	\$240,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$240,000	The North Fork Bridge was originally built in 1951 and is extremely vulnerable to scour as the channel braiding migrates. In poor condition. Bridge safe and reliable during a flood. It is important to protect the bridge and levee from scour. Requires minor budget adjustment to close out.	
12	WLE1 MF SNO CORRIDOR IMP	76%	33%	wr	\$1,303,295	\$1,824,912	\$521,617	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,824,912	Length 50-80 feet. Face rock has appeared to have settled 1-2 feet exposing core material above near upper part of levee face. Larger face rock missing in pockets upstream end of this damage site. Continued damage could compromise facility which provides flood protection for several residences landward of the facility.	
13	WLE1 MF SNO CORRIDOR PLAN	76%	61%	wr	\$1,544,617	\$1,555,476	\$10,859	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,544,617	Between 428th St Bridge and T16 Creek, several locations on levee where toe-rock dislodged and missing toe rock compromises levee integrity, increasing its vulnerability to further scour and potential failure.	
14	WLE1 N BEND RESID FLD MITGTN	76%	61%	wr	\$0	\$385,000	\$385,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$385,000	Failure of this facility could result in damage to a heavily used county road (428th Ave SE).	
15	WLE1 NORTH FORK BRIDGE 2016 REPAIR	Repair	N/A	wr	\$0	\$302,452	\$302,452	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$302,452	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.	
16	WLE1 RECORD OFFICE 2011 REPAIR	Repair	N/A	wr	\$302,452	\$302,452	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$302,452	Project identified by Board to alleviate potential flooding of 1-90 in North Bend. Currently evaluating project alternatives, including levee setback and gravel removal.	
17	WLE1 REIF RD 2016 REPAIR	Repair	N/A	wr	\$0	\$50,000	\$50,000	\$179,950	\$0	\$0	\$0	\$0	\$0	\$179,950	\$229,950	Phaseholder for corridor plan implementation project.	
18	WLE1 SHAKE MILL RB 2016 REPAIR	Repair	N/A	wr	\$0	\$20,000	\$20,000	\$32,169	\$0	\$0	\$0	\$0	\$0	\$32,169	\$52,169	SF Snoqualmie Corridor Plan. Realocate 2015 funding to corridor plan implementation project phaseholders.	
19	WLE1 SHAKE MILL LB 2016 REPAIR	Repair	N/A	wr	\$0	\$100,000	\$100,000	\$700,000	\$0	\$0	\$0	\$0	\$0	\$700,000	\$800,000	Phaseholder funding to partner with WSDOT to expand bridge SR202 opening over South Fork Snoqualmie River. Requires state or federal funding. Relative contribution of this project is being evaluated in the SF Snoqualmie Corridor Plan.	
20	WLE1 SF SNO CORR EARLY ACTION	95%	49%	wr	\$1,195,706	\$3,652,744	\$2,363,038	\$2,000,000	\$2,433,511	\$8,098,380	\$1,500,000	\$0	\$0	\$12,681,891	\$16,244,635	Flood damage repairs from January 2015 flood event. Locations include Mason-Thorsen Ellis and Mason-Thorsen Extension (Middle Fork Snoqualmie), North Park (North Fork Snoqualmie), and Record Office, Meadowbrook, and Railroad (Snoqualmie mainstem).	
21	WLE1 SF SNO CORRIDOR IMP	95%	49%	wr	\$0	\$130,771	\$130,771	\$0	\$1,846,796	\$2,608,109	\$2,289,843	\$383,693	\$0	\$7,228,441	\$7,359,212	This project will continue to acquire or elevate flood-prone structures in the Upper Snoqualmie basin to reduce the risk of flood, erosion, and channel migration damage. Partnership with Cities of Snoqualmie and North Bend. As of May 2016 260 remain to be elevated or acquired. This amount assumes 10-12 home elevations per year.	
22	WLE1 SF SNO CORRIDOR PLAN	79%	49%	wr	\$2,336,181	\$2,621,454	\$285,273	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$2,621,454	Repair approximately 200 feet of revetment. Dutchman Road in this location provides the sole access to the property. The west side of the Snoqualmie Valley downstream of Duval. 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.	
23	WLE1 SR202 SF BRIDGE LENGTHEN	76%	26%	wr	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000	Repair approximately 200 feet of revetment. Dutchman Road in this location provides the sole access to the property. The west side of the Snoqualmie Valley downstream of Duval. 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.	
24	WLE1 UPPER SNOQ 2015 FLOOD REPAIR	Repair	N/A	wr	\$0	\$700,000	\$700,000	\$0	\$302,981	\$0	\$0	\$0	\$0	\$302,981	\$1,002,981	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 of flood proofing of agricultural structures.	
25	WLE1 UPR SNO RES FLD MITGTN	89%	54%	wr	\$5,469,706	\$11,232,391	\$2,762,695	\$738,893	\$2,010,126	\$2,070,430	\$2,132,543	\$2,198,519	\$2,262,415	\$11,410,926	\$22,643,317	Funding in out years intended as local match for FEMA grants.	
26	WLE1 DUTCHMAN RD REPAIR	Repair	N/A	wr	\$0	\$0	\$0	\$209,814	\$395,136	\$0	\$0	\$0	\$0	\$0	\$595,050	\$605,050	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 of flood proofing of agricultural structures.
27	WLE1 FARM FLOOD TSK FORCE IMP	96%	79%	wr	\$559,159	\$720,937	\$1,665,778	\$42,922	\$102,000	\$104,040	\$106,121	\$108,243	\$110,408	\$573,634	\$1,294,571	Funding in out years intended as local match for FEMA grants.	
28	WLE1 SNO REP LOSS MITGTN	74%	21%	wr	\$1,289,702	\$1,712,689	\$443,987	\$0	\$222,862	\$104,040	\$106,121	\$108,243	\$110,408	\$222,862	\$1,035,961	Funding in out years intended as local match for FEMA grants.	