1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

King County

KING COUNTY

Signature Report

August 1, 2018

FCD Resolution FCD2018-06

Proposed No. FCD2018-06.2 **Sponsors**

A RESOLUTION relating to the operations and finances of the King County Flood Control Zone District; adopting a revised 2018 budget, district oversight budget, capital budget, six-year capital improvement program for 2018-2023; and amending Resolution FCD2017-07.2.

WHEREAS, the King County Flood Control Zone District ("the District") adopted its 2018 work program, budget, operating budget, capital budget, and six-year capital improvement program in Resolution FCD2017-07.2, and

WHEREAS, an annual carry-forward budget resolution is necessary to provide budget authority for unspent appropriations from the prior year and to reinstate contract encumbrances, and

WHEREAS, the carry-forward amount for unspent appropriations from 2017 to 2018 is $97,764,111, and

WHEREAS, pursuant to RCW 86.15.140, the District held a public hearing on the proposed carry-forward amount and a supplemental budget on July 30, 2018, and

WHEREAS, pursuant to RCW 86.15.110, the board of supervisors ("the Board") has determined that the flood control improvements adopted by this resolution generally contribute to the objectives of the District's comprehensive plan of development, and

WHEREAS, the Board desires to adopt amendments to the District's 2018

budget, operating budget, capital budget, and six-year capital improvement program;

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

SECTION 1. The Board adopts a revised 2018 budget for the District, as set forth in Attachment B to this resolution, titled "2018 Reallocation Budget July 12, 2018," and amends Section 1 of FCD2017-07.2 accordingly.

SEC TION 2. The Board adopts a revised 2017 operating budget for the District, as set forth in Attachment C to this resolution, titled "2018 Reallocation Operating Budget July 12, 2018," and amends Section 1 of FCD2017-07.2 accordingly.

SECTION 3. The Board adopts a revised 2017 capital budget for the District, consisting of the projects and expenditures Attachment D to this resolution, titled "2018 Reallocation Capital Budget July 12, 2018," and amends Section 1 of FCD2017-07.2 accordingly.

SECTION 4. The Board adopts a revised six-year capital improvement program for the District, as set forth in Attachment E to this resolution, titled "2018-2023 Reallocation Six-Year CIP July 12, 2018," and amends Section 1 of FCD2017-07.2 accordingly.

SECTION 5. The Board adopts a revised 2018-2023 capital budget project list, as set forth in Attachment H to this resolution, titled "2018-2023 Six-Year CIP Project Allocations + Carryover July 12, 2018," and amends Section 1 of FCD2017-07.3 accordingly.

SECTION 6. A. The Board authorizes the extension, enlargement, acquisition or construction of improvements, as applicable, as set forth on Attachments B, C, D, E and

43 H of this resolution.

44 B. The 2006 King County Flood Hazard Management Plan ("Flood Plan"), as
45 amended, serves as the comprehensive plan of development for flood control and
46 floodplain management, and has been prepared for the streams or watercourses upon
47 which the improvements will be enlarged, extended, acquired or constructed. The
48 improvements authorized herein generally contribute to the objectives of the Flood Plan.

49 C. For improvements that are to be constructed, preliminary engineering studies
50 and plans have been made, consisting of one or more of the following: the 2006 Flood
51 Plan, as amended, preliminary feasibility analyses, conceptual designs and design
52 manuals, and such plans and studies are on file with the county engineer.

53 D. Estimated costs for acquisitions and improvements together with supporting
54 data are set forth on Attachments B, C, D, E and H.

55 E. The improvements set forth in Attachments B, C, D, E and H are determined

56 to benefit the county as a whole, as well as the zone.

57

FCD Resolution FCD2018-06 was introduced on and passed as amended by the King County Flood Control District on 7/30/2018, by the following vote:

Yes: 7 - Mr. von Reichbauer, Mr. Gossett, Mr. McDermott, Mr. Dembowski, Mr. Upthegrove, Ms. Kohl-Welles and Ms. Balducci
No: 0
Excused: 2 - Ms. Lambert and Mr. Dunn

KING COUNTY FLOOD CONTROL ZONE DISTRICT
KING COUNTY, WASHINGTON

Reagan Dunn, Chair

ATTEST:

Melani Pedroza, Clerk of the Board

Attachments: B. 2018 Reallocation Budget, C. 2018 Reallocation Operating Budget, D. 2018 Reallocation Capital Budget, E. 2018-2023 Reallocation Six-Year CIP, H. 2018-2023 Six-Year CIP Project Allocations + Carryover

King County Flood Control District

2018 Reallocation Budget

Attachment B

July 12, 2018

Program	2018 Approved	2017 Carryover	2018 Reallocation	2018 Revised
Flood District Administration	792,853	0	0	792,853
Maintenance and Operation	11,333,238	125,000	57,600	11,515,838
Construction and Improvements	53,496,926	97,639,111	(1,323,551)	149,812,487
Bond Retirement and Interest	$0	$0	$0	$0
Total	65,623,017	97,764,111	(1,265,951)	162,121,177
Projected Capital Reserves - Cash Fund Balance [1]	71,484,181			66,093,534
Projected Capital Reserves - Budgetary Fund Balance [2]	(26,673,398)			(29,133,119)

[1] The cash fund balance assumes an expenditure rate of 36% of the capital budget in 2018, 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

2018 Reallocation Operating Budget

Attachment C

July 12, 2018

	2018 Approved	2017 Carryover	2018 Reallocation	2018 Revised
Annual Maintenance	$3,386,766			$3,386,766
Flood Hazards Plan, Grants, Outreach	$718,898	$125,000	$57,600	$901,498
Flood Hazard Studies, Maps, Technical Services	$1,414,741			$1,414,741
Flood Preparation, Flood Warning Center	1,417,463			$1,417,463
Program Management, Supervision, Finance, Budget	$1,283,543			$1,283,543
Program Implementation*	($106,434)			($106,434)
Overhead / Central Costs**	3,218,261			$3,218,261
Total	**$11,333,238**	**$125,000**	**$57,600**	**$11,515,838**

*The Program Implementation category contains the basin team and capital strike team cost centers with high levels of loan out labor to accomplish capital projects. Budgeting loan out labor reduces the budget within the cost center. This happens because the capital fund reimburses the Overhead/Central Costs cost center associated with the loan out labor. At significant levels of loan out labor the reduction in budget is so great that it reduces the budget below zero.

** A portion of these overhead costs are reimbursed from the capital fund for staff time loaned out to capital projects.

King County Flood Control District

2018 Reallocation Capital Budget

Attachment D

July 12, 2018

Basin	Acquisition	Design	Construction	Contingency	Total
Snoqualmie River Basin	$5,265,775	$7,194,705	$22,606,911	$0	$35,067,392
Cedar River Basin	$8,611,645	$5,448,679	$11,408,521	$0	$25,468,845
Green River Basin	$13,602,146	$28,172,821	$3,697,585	$0	$45,472,552
White River Basin	$100,000	$2,221,088	$1,093,533	$0	$3,414,621
Seattle	$0	$0	$780,926	$0	$780,926
Effectiveness Monitoring	$0	$1,402,897	$0	$0	$1,402,897
Countywide Corridor Plan Implementation	$0	$142,610	$0	$0	$142,610
Countywide Miscellaneous	$0	$0	$0	$592,662	$592,662
Opportunity Fund	$0	$0	$17,818,436	$0	$17,818,436
Grant Fund	$0	$0	$7,477,379	$0	$7,477,379
WRIA Grant Funding	$0	$0	$12,174,166	$0	$12,174,166
Total	**$27,579,567**	**$44,582,801**	**$77,057,458**	**$592,662**	**$149,812,487**

King County Flood Control District

2018 - 2023 Reallocation Six-Year CIP

Attachment E

July 12, 2018

Name	2018 Approved	2017 Carryover	2018 Reallocation	2018 Revised	2019	2020	2021	2022	2023	2018 - 2023 Total
Snoqualmie River Basin	$11,966,181	$23,807,488	(706,277)	35,067,392	14,658,594	9,598,805	10,670,673	6,936,434	1,626,623	78,558,522
Cedar River Basin	$13,328,687	$12,029,569	110,589	25,468,845	12,471,379	13,360,453	3,789,266	1,822,991	264,189	57,177,123
Green River Basin	$16,786,577	$29,513,881	(827,905)	45,472,552	24,240,873	35,235,873	8,470,123	14,106,122	16,900,298	144,425,841
White River Basin	$1,079,358	$2,235,263	100,000	3,414,621	1,989,187	7,887,849	5,797,495	69,556	200,000	19,358,708
Seattle Projects	($4,215,112)	$4,995,995	43	780,926	1,550,000	6,173,738	-	-	-	8,504,664
Effectiveness Monitoring	$1,076,734	$326,163	-	1,402,897	702,778	830,323	813,940	767,476	510,698	5,028,112
Countywide Corridor Plan Im	$0	$142,610	-	142,610	-	-	-	-	27,000,000	27,142,610
Countywide Miscellaneous	$130,000	$462,662	-	592,662	382,600	385,252	387,957	390,716	393,531	2,532,717
Subregional Opportunity Fun	$5,738,670	$12,079,766	-	17,818,436	5,879,852	6,012,856	6,144,060	6,275,827	6,408,245	48,539,276
Flood Reduction Grants	$3,085,306	$4,392,073	-	7,477,379	3,161,211	3,232,718	3,303,258	3,374,100	3,445,293	23,993,959
WRIA Grants	$4,520,525	$7,653,641	-	12,174,166	4,654,617	4,792,687	4,934,853	5,081,235	5,231,960	36,869,518
Total	$53,496,926	97,639,111	(1,323,551)	149,812,487	69,691,091	87,510,554	44,311,625	38,824,458	61,980,837	452,131,052

King County Flood Control District

2018 - 2023 Six-Year CIP Project Alloations + Carryover

Attachment H Modified

July 12, 2018

2015-2016 Flood Damage Repairs
Grant/External Funding
Cost Share
2018 Revision - New Project

No	Title	Basin	Type of project	2017 Inception to Date Budget	2017 Inception to Date Expendiure	2018 Adopted	2017 Carryover	2018 Reallocation Request	2018 Revised	2019 Projected	2020 Projected	2021 Projected	2022 Projected	2023 Projected	6-Year CIP Total (Including 2017 Carryover)	Project Life Total	Comments
1	WLFL0 MILLER R RD RVTMNT 2016 REPAIR	F Skykomish	FCD Const	$760,799	$237,560	[illegible]	$523,239	[illegible]	$1,622	$0	$0	$0	$0	$0	$1,622	$762,421	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.
2	WLFL0 SF SKYKMSH REP LOSS MIT	F Skykomish	FCD Acqu/Elev	$690,838	$746,937	$54,566	[illegible]		[illegible]	$0	$0	$0	$0	$119,405	$117,872	$864,809	This project will elevate or buyout individual structures in the South Fork Skykomish Basin to eliminate the risk of flooding or erosion damage during future flood events.
3	WLFL0 SKY W RVR DR FLOOD STUDY	F Skykomish	FCD Const	$81,237	$2,856	$0	$78,381		$78,381	$0	$0	$0	$0	$0	$78,381	$81,237	This project would improve infrastructure at the mouth of Maloney Creek and on the SF Skykomish River to reduce the frequency of flooding of homes and property within the Town of Skykomish.
4	WLFL0 SKYKOMISH LB DOWN 2016 REPAIR	F Skykomish	FCD Const	$150,000	$85,402	$0	$64,599		$64,599	$0	$0	$0	$0	$0	$64,599	$150,000	Approximately 50-foot-long section of missing armor rock immediately downstream of the bridge. Further flooding may compromise or severely damage facility.
5	WLFL0 SKYKOMISH LB UP 2016 REPAIR	F Skykomish	FCD Const	$309,433	$120,455	$0	$188,978	[illegible]	$681	$0	$0	$0	$0	$0	$681	$121,136	Three pockets of missing armor rock: 15, 10 and 75 feet wide and eroded topsoil from upper sections of levee. Further flooding may compromise or severely damage facility.
6	WLFL0 TIMBER LN EROSN BUYOUTS	F Skykomish	FCD Acqu/Elev	$2,586,513	$1,888,350	$223,361	$698,163		$921,524	$0	$0	$0	$0	$0	$921,524	$2,809,874	This project will continue to acquire and remove homes along a stretch of the Skykomish River that are endangered by erosive forces as well as inundation in some places.
7	WLFL0 TIMBERLANE 2016 REPAIR	F Skykomish	FCD Const	$52,500	$11,115	[illegible]	$41,385		$4,925	$20,000	$20,000	$20,000	$20,000	$0	$84,925	$96,040	Old privately built facility in Timberlane Village on County property. Riverside rockery walls continue to oversteepen, settle and fall into the river.
8	WLFL1 428TH AVE SE BR FEASIBILITY	pper Snoq	FCD Const	$300,000	$294,894	[illegible]	$5,106	$36,280	$10,000	$0	$0	$0	$0	$0	$10,000	$304,894	FCD-requested project to 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.
9	WLFL1 CIRCLE RVR RANCH RISK RED	pper Snoq	FCD Const	$150,000	$65,125	$278,505	$84,875		$363,380	$513,426	$1,608,159	$1,738,003	$0	$0	$4,222,969	$4,288,093	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.
10	WLFL1 MASON THRSN EXT 2016 REPAIR	pper Snoq	FCD Const	$240,000	$111	$0	$239,889	[illegible]	$0	$0	$0	$0	$0	$0	$0	$111	Large scour hole in bank at upstream end of Mason Thorson Extension rock-faced levee. Significant settlement and displacement of face rock at upstream end of facility. Scour hole in bank threatens to end-run facility and damage adjacent private property. Damage to levee face-rock compromises levee integrity and may lead to progressive failure, especially at upstream end.
11	WLFL1 MF SNO CORRIDOR IMP	pper Snoq	FCD Const	$1,100,000	$954	$0	$1,099,046		$1,099,046	$2,243,361	$1,591,350	$1,311,272	$0	$0	$6,245,029	$6,245,983	Placeholder for corridor plan implementation project(s)
12	WLFL1 MF SNO CORRIDOR PLAN	pper Snoq	FCD Const	$1,824,912	$1,328,569	$0	$496,343		$496,343	$0	$0	$0	$0	$0	$496,343	$1,824,912	Middle Fork Snoqualmie Corridor Planning, scheduled for completion in 2018
13	WLFL1 NORMAN CREEK CULVERT	pper Snoq	Agreement	$0	$0	$0	$0	$724,000	$724,000	$0	$0	$0	$0	$0	$724,000	$724,000	Replace two existing rusted out 48" Corrugated Metal Pipes on Norman Creek under 428th Ave SE with a new precast concrete box culvert 59' long by 15' wide by 10' tall. 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 as the Norman Creek crossing is the normal outflow for this flood water once the North Fork has overtopped the adjacent levees.
14	WLFL1 NORTH FORK BRIDGE 2016 REPAIR	pper Snoq	FCD Const	$385,000	$171,125	$0	$213,875		$213,875	$0	$0	$0	$0	$0	$213,875	$385,000	The North Fork Bridge was originally built in 1951 and is extreamely 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 RECORD OFFICE 2016 REPAIR	pper Snoq	FCD Const	$0	$0	$350,000	$0		$350,000	$421,000	$0	$0	$0	$0	$771,000	$771,000	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.
16	WLFL1 REIF RD 2016 REPAIR	pper Snoq	FCD Const	$253,000	$32,187	$0	$220,813	[illegible]	$1,297	$0	$0	$0	$0	$0	$1,297	$33,484	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.
17	WLFL1 REIF RD LEVEE IMPROVEMENTS	pper Snoq	FCD Const	$0	$0	$0	$0		$0	$0	$265,438	$318,421	$385,937	$457,218	$1,427,015	$1,427,015	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 REINIG RD RVTMNT 2016 REPAIR	pper Snoq	FCD Const	$0	$28,042	$1,500,000	[illegible]	[illegible]	$771,958	$0	$0	$0	$0	$0	$771,958	$800,000	Repair three primary damage sites just upstream and directly across from the South Fork Snoqualmie confluence totaling ~285 lineal feet.
19	WLFL1 RIBARY CREEK	pper Snoq	FCD Const	$0	$0	$0	$0		$0	$636,492	$815,106	$2,338,618	$2,408,777	$0	$6,198,993	$6,198,993	Address flooding from Ribary Creek at Bendigo Blvd in North Bend as the Snoqualmie levees prevent drainage to the river during high flows.
20	WLFL1 SF SNO CORR EARLY ACTION	pper Snoq	FCD Const	$5,562,744	$1,420,044	[illegible]	$4,142,700	[illegible]	$13,843	$0	$0	$0	$0	$0	$13,843	$1,433,887	Project identified by Board to alleviate potential flooding of I-90 in North Bend. Currently evaluating project alternatives, including levee setback and gravel removal.
21	WLFL1 SF SNO CORRIDOR IMP	pper Snoq	FCD Const	$130,771	$0	[illegible]	$130,771	[illegible]	$0	$0	$0	$0	$0	$0	$0	$0	Placeholder for corridor plan implementation project(s)
22	WLFL1 SF SNO CORRIDOR PLAN	pper Snoq	FCD Const	$2,682,914	$2,568,062	$0	$114,852	[illegible]	$4,418	$0	$0	$0	$0	$0	$4,418	$2,572,480	SF Snoqualmie Corridor planning process and development of capital investment strategy
23	WLFL1 SF SNO LEVEE REMEDIATION	uper Snoq	FCD Const	$0	$0	$295,673	$0		$295,673	$374,439	$727,790	$749,623	$0	$0	$2,147,526	$2,147,526	Six levee deficiencies have been identified in this leveed segment. The project will design and reconstruct the impaired segment of levee in place.
24	WLFL1 SHAKE MILL LB 2016 REPAIR	uper Snoq	FCD Const	$800,000	$15,658	[illegible]	$784,342		$584,342	$923,239	$0	$0	$0	$0	$1,507,581	$1,523,239	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.
25	WLFL1 SHAKE MILL RB 2016 REPAIR	Lper Snoq	FCD Const	$197,500	$0	$172,899	$197,500	$141,601	$512,000	$447,676	$0	$0	$0	$0	$959,676	$959,676	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).
26	WLFL1 SI VIEW RM4 2017 REPAIR	Lper Snoq	FCD Const	$0	$0	$209,000	$0		$209,000	$0	$0	$0	$0	$0	$209,000	$209,000	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.
27	WLFL1 SR202 SF BRIDGE LENGTHEN	Lper Snoq	FCD Const	$0	$0	$0	$0		$0	$0	$0	$0	$0	$100,000	$100,000	$100,000	Placeholder funding to partner with WSDOT to expand bridge SR202 opening over South Fork Snoqualmie and Ribary Creek to improve conveyance and reduce upstream flood impacts. Supported by North Bend. Requires state or federal funding. Relative contribution of this project is being evaluated in the SF Snoqualmie Corridor Plan.
28	WLFL1 TATE CRK BRIDGE FEASIBILITY	Lper Snoq	Agreement	$0	$0	$0	$0		$0	$0	$0	$0	$0	$150,000	$150,000	$150,000	Prepare a Concept Development Report (CDR) to analyze and select best span/alignment replacement bridge and road-raising option as the current bridge does not provide enough hydraulic opening due to the transport of sediments and water overtops the approaches during floods.
29	WLFL1 UPPER SNOQ 2015 FLOOD REPAIR	Lper Snoq	FCD Const	$1,465,673	$509,922	$15,450	$955,751		$971,201	$0	$0	$0	$0	$0	$971,201	$1,481,123	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).
30	WLFL1 UPR SNO RES FLD MITIGTN	Lper Snoq	FCD Acqu/Elev	$11,971,284	$9,748,621	$1,454,158	$2,222,663	[illegible]	$2,787,628	$2,412,151	$2,484,516	$2,559,051	$2,635,823	$0	$12,879,169	$22,627,790	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.
31	WLFL1 USACE PL 84-99 SF SNO	Lper Snoq	FCD Const	$0	$0	$150,223	$0		$150,223	$183,154	$352,868	$363,454	$0	$0	$1,049,698	$1,049,698	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.
32	WLFL2 DUTCHMAN RD REPAIR	Lwer Snoq	FCD Const	$209,914	$0	$338,679	$209,914		$548,593	$0	$0	$0	$0	$0	$548,593	$548,593	Repair approximately 200 feet of revetment. Dutchman Road in this location provides the sole access to residences and business on the west side of the Snoqualmie Valley downstream of Duvall. Continued erosion of the revetment could result in erosion of the road (West Snoqualmie Valley Road NE) which would severely limit access to the downstream property owners during or following a flood event.
33	WLFL2 DUVALL BRIDGE 1136A	Lwer Snoq	Agreement	$30,000	$9,244	$120,000	$20,756		$140,756	$0	$0	$0	$0	$0	$140,756	$150,000	The foundation of the main-span pier is exposed and is vulnerable to destabilization during a flood. Add scour mitigation measures to protect footing. Bridge crosses the Snoqualmie River at Duvall and is the city's primary route.
34	WLFL2 FARM FLOOD TSK FORCE IMP	Lwer Snoq	FCD Const	$763,759	$759,345	$111,858	$4,414		$116,272	$115,214	$118,670	$122,230	$125,897	$0	$598,283	$1,357,628	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.
35	WLFL2 L SNO REP LOSS MITGTION	Lwer Snoq	FCD Acqu/Elev	$1,712,699	$1,269,231	[illegible]	$443,468		$426,440	$0	$0	$0	$0	$0	$426,440	$1,695,671	Funding as possible local match for FEMA grants to elevate or acquire at-risk structures.
36	WLFL2 L SNO/ALDAIR CORRDOR PLN	Lwer Snoq	FCD Const	$7,252,761	$5,860,655	$113,053	$1,392,106		$1,505,159	$742,630	$655,636	$0	$0	$0	$2,903,425	$8,764,080	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.
37	WLFL2 LWR SNO RESDL FLD MITGTN	Lwer Snoq	FCD Acqu/Elev	$3,306,276	$2,151,873	[illegible]	$1,154,403		$1,126,444	$737,924	$0	$0	$0	$0	$1,864,368	$4,016,241	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.
38	WLFL2 SE 19TH WAY REVETMENT	Lwer Snoq	FCD Const	$1,706,294	$595,008	$0	$1,111,286	$210,000	$1,321,286	$0	$0	$0	$0	$0	$1,321,286	$1,916,294	Rebuild revetment to protect road access to high value agricultural operations and lands. Construction of road anticipated 2017; bank repair anticipated in 2018.

No.	Title	Basin	Type of project	2017 Inception to Date Budget	2017 Inception to Date Expenditure	2018 Adopted	2017 Carryover	2018 Reallocation Request	2018 Revised	2019 Projected	2020 Projected	2021 Projected	2022 Projected	2023 Projected	6-Year CIP Total (including 2017 Carryover)	Project Life Total	Comments
39	WLFL2 SE DAVID POWELL RD DOWNSTREAM	Lower Snoq	FCD Const	$1,036,456	$588,184	$0	$448,272		$448,272	$0	$0	$0	$0	$0	$448,272	$1,036,456	FCD-requested project to reduce neighborhood isolation from flooding. Prevent slope failure of sole access roadway that would isolate 150 homes.
40	WLFL2 SE DAVID POWELL RD UPSTREAM	Lower Snoq	Agreement	$250,000	$133,968	$700,000	$116,032	$150,000	$966,032	$1,100,000	$0	$0	$0	$0	$2,066,032	$2,200,000	The river is scouring the road away and David Powell Road is collapsing into the river. This project will repair an existing failing revetment and extend MSE wall to prevent undercutting of the riverbank and roadway.
41	WLFL2 SE FISH HATCHERY RD	Lower Snoq	FCD Const	$527,905	$451,804	$0	$76,101		$76,101	$0	$0	$0	$0	$0	$76,101	$527,905	FCD-requested project to reduce neighborhood isolation from flooding. Prevent slope failure of sole access roadway that would isolate 20-30 homes.
42	WLFL2 SINNEMA QUAALE 2011 REPR	Lower Snoq	FCD Const	$12,508,516	$12,432,743	$0	$75,773		$75,773	$0	$0	$0	$0	$0	$75,773	$12,508,516	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 to be completed in 2017, project anticipated to be closed out in 2018.
43	WLFL2 SNOQUALMIE VALLEY FEASIBILITY	Lower Snoq	Agreement	$0	$0	$0	$0		$0	$0	$0	$250,000	$250,000	$0	$500,000	$500,000	Regional flooding in the Snoqualmie Valley cuts off access to eastern cities. Determine which major roadway(s) that cross the Snoqualmie Valley would be the most cost effective to improve in the valley with chronic flood issues impacting over 25,000 daily drivers.
44	WLFL2 STOSSEL RB 2018 REPAIR	Lower Snoq	FCD Const	$0	$0	$0	$0	$850,000	$850,000	$0	$0	$0	$0	$0	$850,000	$850,000	Repair revetment from damage received during 2017/18 flood season.
45	WLFL2 TOLT PIPELINE PROTECTION	Lower Snoq	FCD Const	$3,271,375	$2,917,631	$6,162,541	$353,744	$1,302,952	$7,819,237	$42,436	$0	$0	$0	$0	$7,861,673	$10,779,304	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 anticipated 2017.
46	WLFL2 WOODINVILLE DUVALL BR 1136B/1136	Lower Snoq	Agreement	$100,000	$15,078	$300,000	$84,922		$384,922	$0	$0	$0	$0	$0	$384,922	$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 loosing approaches during flooding. A similar repair was done on Woodinville-Duvall Bridge No. 1136D.
47	WLFL3 FREW LEVEE 2016 REPAIR	Tolt	FCD Const	$150,000	$66,450	$102,000	$83,550	$108,360	$293,910	$0	$0	$0	$0	$0	$293,910	$360,360	Face rock displaced along approximately 50 feet of levee face. Some core material appears to have been lost, resulting in an oversteepened 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.
48	WLFL3 GIRL SCOUT LEVEE 2016 REPAIR	Tolt	FCD Const	$60,000	$745	$251,000	$59,255		$310,255	$0	$0	$0	$0	$0	$310,255	$311,000	Repair approximately 20 feet of face and toe rock dislodged from Girl Scout Camp levee revetment below side channel confluence with mainstem. Missing face and toe rock compromises levee integrity, increasing its vulnerability to further scour and potential failure.
49	WLFL3 HOLBERG FEASIBILITY	Tolt	FCD Const	$200,000	$750	$0	$199,250		$199,250	$0	$0	$0	$0	$0	$199,250	$200,000	Feasibility study to determine the nature and extent of levee improvements necessary to remove four homes in unincorporated King County from the regulatory Channel Migration Zone as mapped in the March 2017 Draft Tolt River Channel Migration study.
50	WLFL3 LOWER FREW LEVEE SETBACK	Tolt	FCD Const	$175,000	$93,007	$1,236,000	$81,993		$1,317,993	$1,823,962	$0	$0	$0	$0	$3,141,955	$3,234,962	Capital Investment Strategy. Design, based on level of service analysis, the highest priority levee setback for flood risk reduction. FCD 6-year includes funds needed for grant match for future grant applications.
51	WLFL3 LOWER TOLT RIVER ACQUISITION	Tolt	FCD Acqu/Elev	$744,475	$529,475	$0	$215,000		$215,000	$0	$0	$0	$0	$0	$215,000	$744,475	Acquisition between the Swiftwater development and the river for the future setback of the Upper Frew Levee.
52	WLFL3 REMLINGER LEVEE 2017 REPAIR	Tolt	FCD Const	$0	$0	$311,000	$0		$311,000	$0	$0	$0	$0	$0	$311,000	$311,000	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.
53	WLFL3 RIO VISTA PROPERTY ACQ	Tolt	FCD Acqu/Elev			$500,000	$0		$500,000	$0	$0	$0	$0	$0	$500,000	$500,000	Capital Investment Strategy. Acquire 2 at-risk homes from willing sellers, acquire remaining 14 homes as funds become available.
54	WLFL3 SAN SOUCI NEIBRHOOD BUYOUT	Tolt	FCD Acqu/Elev	$5,553,353	$4,198,636	$0	$1,354,717		$1,354,717	$0	$0	$0	$0	$0	$1,354,717	$5,553,353	This project will buyout remaining properties and remove all homes and privately-constructed rubble levee at upstream end of the community access road, ultimately completing project initiated 20 years ago by others. When completed, will result in removing approximately 20 homes from high hazard areas within and just upstream and downstream of San Souci neighborhood.
55	WLFL3 SAN SOUCI REACH IMPRVMNTS	Tolt	FCD Const	$0	$0	$100,000	$0		$100,000	$250,000	$700,000	$700,000	$750,000	$0	$2,500,000	$2,500,000	Capital Investment Strategy. Construct Tolt Road NE road elevation in one location. Remove illegal revetment and roads in San Souci neighborhood.
56	WLFL3 SEDIMENT MGMT FEAS	Tolt	FCD Const	$0	$0	$209,605	$0		$209,605	$205,284	$0	$0	$0	$0	$414,889	$414,889	Capital Investment Strategy. Conduct sediment management feasibility study and develop a plan. Update and include upper watershed sediment production estimates.
57	WLFL3 SR 203 BR IMPRVMNTS FEAS	Tolt	FCD Const	$0	$0	$205,743	$0		$205,743	$181,306	$0	$0	$0	$0	$387,049	$387,049	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.
58	WLFL3 TOLT 2015 FLOOD REPAIRS	Tolt	FCD Const	$900,000	$46,909	$0	$853,091	[illegible]	$153,091	$0	$0	$0	$0	$0	$153,091	$200,000	Flood damage repairs from January 2015 flood event. Locations include Frew, Upper Frew, Remlinger, and Girl Scout Camp.
59	WLFL3 TOLT CORRIDOR PLAN	Tolt	FCD Const	$1,153,657	$1,134,500	$0	$19,157		$19,157	$0	$0	$0	$0	$0	$19,157	$1,153,657	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.
60	WLFL3 TOLT R LEVEE L.O.S. ANALYSIS	Tolt	FCD Const	$150,000	$78,484	$403,250	$71,516		$474,766	$150,000	$0	$0	$0	$0	$624,766	$703,250	Capital Investment Strategy. Conduct a detailed hydraulic analysis to optimize the elevation of new levees to maximize flood risk reduction benefits.
61	WLFL3 TOLT R MILE 1.1 SETBACK	Tolt	FCD Acqu/Elev	$5,484,360	$4,110,305	[illegible]	$1,374,055		$795,801	$530,450	$0	$0	$0	$0	$1,326,251	$5,436,556	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.
62	WLFL3 TOLT R NATURAL AREA ACQ	Tolt	FCD Acqu/Elev	$2,470,067	$1,671,614	$518,000	$798,453		$1,313,453	$530,450	$109,273	$0	$0	$0	$1,953,176	$3,624,790	Capital investment strategy, acquire at-risk homes from willing sellers.
63	WLFL3 TOLT R RD ELEVATION FEASIBILITY	Tolt	FCD Const	$250,000	$45,001	$0	$204,999		$204,999	$0	$0	$0	$0	$0	$204,999	$250,000	FCD-requested project to reduce neighborhood isolation from flooding. Evaluate feasibility of elevating sections of Tolt River Road.
64	WLFL3 TOLT R RD NE IMPROVEMENTS	Tolt	FCD Const	$0	$0	$0	$0		$0	$0	$50,000	$100,000	$210,000	$800,000	$1,160,000	$1,160,000	Capital Investment Strategy. Initiate design for elevation of one road location to reduce or eliminate isolation. Implement additional road elevations as funds become available.
65	WLFL3 UPPER FREW LEVEE SETBACK	Tolt	FCD Const	$0	$0	$0	$0		$0	$0	$100,000	$100,000	$150,000	$0	$350,000	$350,000	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.
66	WLFL4 ALPINE MANOR NEIGHBORHOOD BUY	Raging	FCD Acqu/Elev	$2,280,652	$1,753,460	$405,755	$527,192	[illegible]	$100,000	$0	$0	$0	$0	$0	$100,000	$1,853,460	Acquisition of single-family homes and future acquisition of mobile home park at risk of channel migration along the Raging River in the Alpine Manor neighborhood.
67	WLFL4 RAGING MOUTH TO BR 2017 REPAIR	Raging	FCD Const	$0	$0	$500,000	$0		$500,000	$74,000	$0	$0	$0	$0	$574,000	$574,000	Repair 150 lineal feet of discontinuous damage and missing toe rock. The levee protects the landward area from flooding and serves as the road embankment for Dike Rd, an access road to the Fall City boat launch. The damaged levee section is immediately adjacent to the Twin Rivers golf course barn, which would experience greater flooding if the levee were breached.
68	WLFL4 RAGING R BRIDGE 1008E	Raging	Agreement	$80,000	$26,062	$0	$54,938		$54,938	$0	$0	$0	$0	$0	$54,938	$80,000	This bridge has a history of scour damage. One of the arch foundations is exposed. Repair scour mitigation measures to protect the footing. It serves only one house but is a designated King County Landmark.
69	**Snoqualmie-South Fork Skykomish Subtotal**			$84,022,637	$60,215,149	$11,996,181	$23,807,488	[illegible]	$35,067,392	$14,658,594	$9,598,805	$10,670,673	$6,936,434	$1,626,623	$78,558,522	$139,296,909	
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72	WLFL5 NE 8TH ST AT LAKE ALLEN OUTLET	Sammamish	Agreement	$0	$0	$0	$0		$0	$0	$400,000	$1,400,000	$1,000,000	$0	$2,800,000	$2,800,000	To address chronic flooding on this sole access roadway with approximately 200 properties, look at upstream and downstream retention/detention options, study road-raising options, prepare Concept Development Report, analyze and select best options.
73	WLFL5 SAMMAMISH R BANK REPAIRS	Sammamish	FCD Const	$419,895	$304,373	$721,909	$115,522	$10,589	$848,040	$0	$0	$0	$0	$0	$848,040	$1,152,413	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.
74	WLFL5 WILLOWMOOR FLOODPLAIN REST	Sammamish	FCD Const	$2,717,923	$1,454,905	[illegible]	$1,263,018		$1,081,363	$1,684,709	$2,011,665	$0	$0	$0	$4,777,737	$6,232,642	Willowmoor Floodplain Restoration Project seeks to reduce the frequency and duration of high lake levels in Lake Sammamish while maintaining downstream Sammamish River flood control performance and enhancing habitat. The project will reconfigure the Sammamish transition zone to ensure ongoing flow conveyance, downstream flood control, potential extreme lake level reduction, habitat conditions improvement, and reduction of maintenance impacts and costs. In June 2016 the Executive Committee approved a motion (2016-04) authorizing 30% design of the split-channel alternative including various design elements such as variable depth pools, cold water supplementation, and other elements itemized in the motion.
75	WLFL6 FFTEENVILLE CRK BRIDGE 493C	Lk Wash Tribs	Agreement	$0	$0	$150,000	$0		$150,000	$0	$0	$0	$0	$0	$150,000	$150,000	Feasibility analysis to identify potential solutions to bank erosion and backwatering problems at bridge.
76	WLFL6 LOWER COAL CRK PHJ	Lk Wash Tribs	Agreement	$3,958,751	$1,980,959	$5,595,000	$1,977,792		$2,572,792	$4,159,000	$145,000	$120,000	$100,000	$66,000	$12,162,792	$14,143,751	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.
77	WLFL6 MAY VALLEY DRAINAGE IMPRVMNT	Lk Wash Tribs	FCD Const	$0	$0	$80,000	$0		$80,000	$0	$0	$0	$0	$0	$80,000	$80,000	As recommended in the May Creek Basin Plan, two sediment trap facilities will be evaluated to limit sediment loading from two May Creek tributaries. Both projects would require land acquisition, whether easement or property purchase.
78	WLFL7 CDR PRE-CONST STRTGC ACQ	Cedar	FCD Acqu/Elev	$4,330,532	$2,573,767	$0	$1,756,765		$1,756,765	$0	$0	$0	$0	$0	$1,756,765	$4,330,532	This project will acquire strategic real estate upon which several large Flood Control District capital projects are dependent, namely the levee setback projects at the Herzman, Jan Rd, Rhode, Getchman, and Rutledge-Johnson Lower Jones Rd levee segments. Acquisition funding related to these projects is now included in the individual capital projects.
79	WLFL7 CEDAR LEVEE SETBACK FEAS (Capital)	Cedar	FCD Const	$1,987,587	$1,853,797	$0	$133,790		$133,790	$0	$0	$0	$0	$0	$133,790	$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.
80	WLFL7 CEDAR R REP LOSS MTGATN	Cedar	FCD Acqu/Elev	$3,788,422	$3,182,200	$0	$606,222		$606,222	$0	$0	$0	$0	$0	$606,222	$3,788,422	Acquire frequently-flooded homes. Placeholder funding until District adopts acquisition policy.
81	WLFL7 CEDAR RIVER TRAIL SITE A BANK	Cedar	FCD Const	$0	$0	$0	$0		$0	$100,000	$100,000	$200,000	$490,000	$0	$890,000	$890,000	Capital Investment Strategy. Repair eroded section of left bank with bioengineered revetment to stabilize toe of bank and to prevent large scale bank failure.
82	WLFL7 CEDAR RVR GRAVEL REMOVAL	Cedar	Agreement	$11,102,885	$9,638,127	$0	$1,464,758		$1,464,758	$962,613	$104,880	$445,679	$111,267	$114,605	$3,203,802	$12,841,929	The project will ensure the minimum required 100-year flood conveyance capacity along the lower 1.25 miles of the Cedar River. Project is a required maintenance action for the Army Corps of Engineers 205 Flood Control Project. Project costs were updated in March 2016.
83	WLFL7 CITY OF RENTON LEVEE CERTIFICAT	Cedar	Agreement			$750,000	$0		$750,000	$3,000,000	$1,250,000	$0	$0	$0	$5,000,000	$5,000,000	Placeholder for Renton levee certification projects.
84	WLFL7 ELLIOTT BR LEVEE SETBACK	Cedar	FCD Const	$2,175,408	$2,168,073	[illegible]	$7,335		$0	$0	$0	$0	$0	$0	$0	$2,168,073	Purpose of the project is to setback levees on both sides of the river below the Elliott/154th ST Bridge. Based on the Cedar Capital Investment Strategy this project is no longer scheduled for the near-term 6-year timeframe.

No.	Title	Basin	Type of project	2017 Inception to Date Budget	2017 Inception to Date Expenditure	2018 Adopted	2017 Carryover	2018 Reallocation Request	2018 Revised	2019 Projected	2020 Projected	2021 Projected	2022 Projected	2023 Projected	6-Year CIP Total (Including 2017 Carryover)	Project Life Total	Comments
85	WLFL7 FBD CORRIDOR IMPLEMENTATION	Cedar	FCD Acqu/Elev	$5,705,500	$3,001,014	$806,284	$2,704,486		$3,510,770	$0	$0	$0	$0	$0	$3,510,770	$6,511,784	Washington State Floodplains by Design grant from the Department of Ecology. The project will buyout residents in high risk areas, increase the capacity for flood storage, and provide corresponding environmental improvements. The project has cost-share funding from the City of Seattle
86	WLFL7 HERZMAN LEVEE SETBACK	Cedar	FCD Const	$0	$0	$944,872	$0		$944,872	$226,184	$3,979,360	$78,786	$81,149	$83,584	$5,393,935	$5,393,935	Capital Investment Strategy. Setback levee, excavate side-channel to reduce pressure on revetment, reconstruct, reinforce and/or extend revetment, acquire up to 5 properties
87	WLFL7 JAN ROAD NEIGHBORHOOD	Cedar	FCD Const	$0	$0	$900,000	$0	$95,326	$995,326	$0	$0	$0	$0	$0	$995,326	$995,326	Capital Investment Strategy. Suite of solutions to be determined as part of feasibility study. Includes raise road, partial removal of Jan Road levee, contruction of side channel, and mitigation of at-risk properties
88	WLFL7 LOWER CEDAR FEASIBILITY STUDY	Cedar	FCD Const	$0	$0	$200,000	$0		$200,000	$200,000	$100,000	$0	$0	$0	$500,000	$500,000	Capital Investment Strategy. Conduct feasibility study of Lower Cedar reach in City of Renton to 1) quantify economic damage potential 2) determine infrastructure modifications to improve flood resiliency and sediment storage potential, and 3) conduct cost-benefit analysis
89	WLFL7 LOWER JONES ROAD NEIGHBORHOO	Cedar	FCD Const	$36,000	$0	$3,057,792	$36,000	[illegible]	$2,996,466	$1,738,873	$4,569,548	$1,544,601	$40,575	$0	$10,892,263	$10,892,263	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
90	WLFL7 MAPLEWOOD FEASIBILITY STUDY	Cedar	FCD Const	$440,000	$56,732	$0	$383,268		$383,268	$0	$0	$0	$0	$0	$383,268	$440,000	Capital Investment Strategy. Conduct site specific landslide risk assessment study, conduct a feasibility study to evaluate opportunities to modify the Erickson Levee
91	WLFL7 MAY VLY - ISSQH-HOBART INTRSCTN	Cedar	Agreement	$0	$0	$0	$0	$100,000	$100,000	$0	$0	$0	$0	$0	$100,000	$100,000	Contribution towards the preliminary design of the May Valley and Issaquah Hobart Intersection improvements.
92	WLFL7 RIVERBEND MHP ACQ	Cedar	FCD Const	$5,357,042	$4,044,614	$0	$1,312,428		$1,312,428	$0	$0	$0	$0	$0	$1,312,428	$5,357,042	This project represents the Flood District contribution to a larger project that relocates mobile home park tenants and initiates preliminary engineering design for potential levee setback / realignment to reduce flood heights, velocities and channel migration risk in this reach.
93	WLFL7 SE 162ND AVE AT 256TH CT	Cedar	Agreement	$150,000	$124,605	$250,000	$25,395		$275,395	$400,000	$700,000	$0	$0	$0	$1,375,395	$1,500,000	To address a culvert failure affecting approximately 10 properties, prepare Concept Development Report to analyze and select best culvert replacement and road-raising option, and analyze upstream and downstream retention/detention impacts
94	WLFL7 SR 169 FEASIBILITY STUDY	Cedar	FCD Const	$260,000	$17,211	$61,800	$242,789		$304,589	$0	$0	$0	$0	$0	$304,589	$321,800	Conduct feasibility study in coordination with WSDOT to evaluate flood risk reduction opportunities, such as elevating SR 169, upgrading the local drainage infrastructure, and / or installation of back flow prevention gates.
95	**Cedar-Sammamish Subtotal**			$42,429,945	$30,400,376	$13,328,687	$12,029,569	$110,589	$25,468,845	$12,471,379	$13,360,453	$3,789,266	$1,822,991	$264,189	$57,177,123	$87,577,499	
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98	WLFL8 BRISCOE LEVEE SETBACK	Green	Agreement	$23,330,271	$20,478,565	$0	$2,851,706		$2,851,706	$0	$0	$0	$0	$0	$2,851,706	$23,330,271	Floodwall construction at four locations completed by the City of Kent. Final expenditures for the remainder of 2017 will include reimbursement for property acquisition and riparian plantings. The revised 2017 financial plan includes revenue of $4.1 million for the sale of the Rivers Edge Business Park. Per FCD 2016-20 Section 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.
99	WLFL8 BRPS BLACK R PUMP STATION	Green	FCD Const	$5,374,203	$5,157,701	[illegible]	$216,502	$17,257	$4,599	$0	$0	$0	$0	$0	$4,599	$5,162,299	Expenditures here include sediment removal, fuel system upgrades, life-cycle efficiency analysis to inform future upgrades, and priority items from recently completed needs assessment (2015). New line items established below to account for discrete project elements.
100	WLFL8 BRPS CONTROL BLDG RPLCMT	Green	FCD Const	$50,000	$0	$480,368	$50,000		$530,368	$1,554,622	$7,577,624	$25,887	$0	$0	$9,688,501	$9,688,501	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.
101	WLFL8 BRPS FISH PASS IMPRVMNTS	Green	FCD Const			$0	$0		$0	$0	$0	$831,751	$2,241,456	$6,316,655	$9,389,862	$9,389,862	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.
102	WLFL8 BRPS HIGH-USE ENGINES	Green	FCD Const	$252,900	$44,098	$221,179	$208,802		$429,981	$1,414,074	$25,133	$0	$0	$0	$1,869,188	$1,913,286	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.
103	WLFL8 BRPS SUPPORT SYS UPGRADES	Green	FCD Const			$0	$0		$0	$175,261	$822,168	$779,584	$26,663	$0	$1,803,676	$1,803,676	This project will design and build the third phase of renovations to the Black River pump station, replacing support systems such as engine control panels, cooling systems, oilers and hoists.
104	WLFL8 DESIGNE USACE 2015	Green	Agreement	$2,563,620	$884,958	[illegible]	$1,678,662	[illegible]	$2,594	$0	$0	$0	$0	$0	$2,594	$887,552	Cost-share flood damage repair from March 2014 high flows with Corps of Engineers. Construction in 2016
105	WLFL8 DYKSTRA USACE 2015	Green	Agreement	$692,856	$640,200	$6,695	$52,656	[illegible]	[illegible]	$0	$0	$0	$0	$0	[illegible]	$600,841	Cost-share flood damage repair from March 2014 high flows with Corps of Engineers. Construction in 2016
106	WLFL8 GREEN PRE CONST ACQ	Green	FCD Acqu/Elev	$368,856	$368,856	$5,000,000	$0		$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$30,000,000	$30,368,856	This project will acquire strategic real estate upon which future large Flood Control District capital projects are dependent, thereby reducing risks to construction schedules for these projects.
107	WLFL8 GREEN R PL84-99 MITIGATN	Green	FCD Const	$4,043,987	$4,055,796	$1,616,554	[illegible]		$1,604,745	$52,000	$25,000	$25,000	$0	$0	$1,706,745	$5,762,541	This project will result in actions to mitigate environmental damage from tree cutting during 2008-9 (as required by permitting agencies) to maintain eligibility for US Army Corps of Engineers PL84-99 program. The current mitigation effort is the Teufel project.
108	WLFL8 HSB BREDA SETBACK	Green	Agreement	$1,755,000	$29,811	$2,522,674	$1,725,189		$4,247,863	$590,285	$2,427,136	$982,119	$0	$0	$8,247,402	$8,277,214	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.
109	WLFL8 HSB MCCOY REALIGNMENT	Green	FCD Const	$400,000	$0	$0	$400,000		$400,000	$0	$0	$0	$0	$0	$400,000	$400,000	New project to implement interim SWIF adopted by Board of Supervisors.This PL 84-99 levee segment contains a 'Minimally acceptable' rating by the USACE due to a slope deficiency at RM 24.3 (oversteepened 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.
110	WLFL8 HSB NURSING HOME SETBACK	Green	FCD Const	$0	$0	$0	$0		$0	$0	$0	$100,000	$2,000,000	$500,000	$2,600,000	$2,600,000	New project to implement interim SWIF adopted by Board of Supervisors.The Nursing Home levee is over-steepened and does not meet current engineering standards. The economic consequence of levee failure or overtopping to the lower Green River valley is extensive and could cause tens of millions of dollars in damage. This capital project area contains a 'Minimally Acceptable' deficiency by the US Army Corps of Engineers at RM 25. S (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.
111	WLFL8 INTERIM SWIF IMPLEMENTATION	Green	FCD Const	$30,000	$2,650	$0	$27,350	$40,000	$67,350	$0	$0	$0	$0	$0	$67,350	$70,000	Coordination and planning activities to implement recommendations of interim SWIF. Maintenance work associated with the interim SWIF is included in the operating budget.
112	WLFL8 LOWER RUSSELL ACQ KENT	Green	Agreement	$1,000,000	$0	$0	$1,000,000	$23,550	$1,023,550	$0	$0	$0	$0	$0	$1,023,550	$1,023,550	Acquisitions by the City of Kent for the Lower Russell levee setback project
113	WLFL8 LWR GRN R CORRIDOR PLANS/ES	Green	Agreement	$1,743,249	$129,701	$0	$1,613,548		$1,613,548	$0	$0	$0	$0	$0	$1,613,548	$1,743,249	Lower Green River Corridor Planning and Environmental Impact Statement
114	WLFL8 LWR RUSSELL LEVEE SETBACK	Green	FCD Const	$12,077,130	$10,792,961	$2,478,808	$1,284,169	$6,000,000	$9,762,977	$13,910,520	$18,357,812	$63,028	$0	$0	$42,094,337	$52,887,298	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.
115	WLFL8 MILWAUKEE LEVEE #2-KENT	Green	Agreement	$8,500,000	$108,711	$0	$8,391,289		$8,391,289	$0	$0	$0	$0	$0	$8,391,289	$8,500,000	Prepare an analysis and study of design and construction alternatives to provide flood protection, scour protection, enable levee certification and secure necessary land rights. Current ILA with Kent for this first phase is $3.65 million; the ILA assumes that the total project cost is $8.5 million.
116	WLFL8 PATTON BRIDGE 3015	Green	Agreement	$150,000	$47,524	$0	$102,476		$102,476	$0	$0	$0	$0	$0	$102,476	$150,000	This project will address scour damage to the bridge, which is on the primary through route of the Green River Valley Rd. The bridge is also a King County landmark.
117	WLFL8 PORTER LEVEE	Green	FCD Const	$720,000	$300,000	$0	$420,000		$420,000	$0	$0	$0	$0	$0	$420,000	$720,000	Contribute the cost of a repair ($720,000) to a $7 million levee setback project. By relocating the levee, 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.
118	WLFL8 PEDDINGTON REACH SETBACK	Green	FCD Const	$16,889,083	$16,570,959	$0	$318,124	[illegible]	$268	$0	$0	$0	$0	$0	$268	$16,571,227	Project expenditures will continue into 2017, closeout anticipated in 2018.
119	WLFL8 RUSSELL RD UPPER KENT	Green	Agreement	$6,072,173	$6,061,985	$0	$10,188	$10,000	$20,188	$0	$0	$0	$0	$0	$20,188	$6,082,173	Project is to improve the levee by providing a minimum of 3 feet of freeboard above the predicted 500-year flood event and improve slope stability. These segments of the Russell Road Upper Levee have over-steepened slopes and therefore lack adequate structural stability to provide adequate safety.
120	WLFL8 S 180TH ST BRIDGE FLOODWALL EXT	Green	Agreement	$65,378	$0	$0	$65,378		$65,378	$0	$0	$0	$0	$0	$65,378	$65,378	The project will increase the height of a flood wall to provide approximately 30" of additional flood protection.
121	WLFL8 OLD JEFF'S FARM REVETMENT	Green	FCD Const	$300,000	$171,983	$1,726,802	$128,017		$1,854,819	$1,428,198	$0	$0	$0	$0	$3,283,017	$3,455,000	This project will conduct a feasibility analysis of channel migration hazards from river mile 21.1 to 21.7. No design or construciton funding at this time.
122	WLFL8 SE 380 PL AT SR 164	Green	Agreement	$0	$0	$690,000	$0		$690,000	$100,000	$400,000	$100,000	$0	$0	$690,000	$690,000	This project will analyze culvert replacement and road-raising options and implement the preferred option.
123	WLFL8 SE 384 ST @ 176 AVE SE	Green	Agreement	$0	$0	$0	$0		$0	$0	$0	$0	$150,000	$1,500,000	$1,650,000	$1,650,000	These two bridges are subject to having the roadway approach fill wash out during a flood. Excavate approaches and rebuild approaches to prevent loosing approaches during flooding. A similar repair was done on Woodinville-Duvall Bridge No. 1136D
124	WLFL8 SIGNATURE POINTE REVETMENT	Green	Agreement	$300,000	$0	$0	$300,000		$300,000	$0	$0	$0	$0	$0	$300,000	$300,000	Signature Pointe is a revetment/levee on the Green River between river mile 22.06 and 23.18 that does not meet the FEMA requirements for accreditation due to inadequate freeboard. This project includes development of a project charter and an alternatives analysis to select an alternative to achieve increased flood protection; embankment and toe protection in a manner that can be certified and accredited.
125	WLFL8 TITUS PIT RVTMNT 2018 REPAIR	Green	Agreement	$0	$0	$0	$0	$250,000	$250,000	$0	$0	$0	$0	$0	$250,000	$250,000	Repair of the recent damage to the Titus Pit RB revetment is needed to prevent a potential revetment failure and Green River road collapse. The revetment protects an adjacent King County arterial road and utilities (such as water, natural gas, telecommunication and power) under the road.

No.	Title	Basin	Type of project	2017 Inception to Date Budget	2017 Inception to Date Expenditure	2018 Adopted	2017 Carryover	2018 Reallocation Request	2018 Revised	2019 Projected	2020 Projected	2021 Projected	2022 Projected	2023 Projected	6-Year CIP Total (including 2017 Carryover)	Project Life Total	Comments
126	WLFL8 TUK-205 RATOLO FLOODWALL	Green	FCD Const			$0	$0		$0	$0	$0	$0	$1,500,000	$300,000	$1,800,000	$1,800,000	New project to implement interim SWIF adopted by Board of Supervisors. This project will construct a 0.15 mile floodwall and sloped embankment to protect adjacent businesses from flooding. The floodwall alignment (including embankment slope, factors of safety, and necessary real estate) will be finalized during the project design phase.
127	WLFL8 TUK-205 SEGALE FLOODWALL	Green	FCD Const	$0	$0	$0	$0		$0	$0	$601,000	$562,754	$3,188,003	$3,283,643	$7,635,400	$7,635,400	New project to implement interim SWIF adopted by Board of Supervisors. The Gaco portion of the Tukwila 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 the Army Corps of Engineers PL 84-99 rehabilitation program.
128	WLFL8 TUK-205 USACE GACO REPAIR	Green	Agreement	$9,064,053	$382,418	$3,796,580	$8,681,635	($3,000,000)	$6,478,215	$15,913	$0	$0	$0	$0	$6,494,128	$6,876,546	500 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.
129	**Green-Duwamish Subtotal**			$95,742,759	$66,228,878	$16,786,577	$29,513,881	($627,853)	$45,472,552	$24,240,873	$35,235,873	$8,470,123	$14,106,122	$16,900,298	$144,425,841	$210,654,719	
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131																	
132	WLFL8 BUTTE AVE FLOOD MITIGATION	White	Agreement	$470,000	$0	$0	$470,000		$470,000	$0	$0	$0	$0	$0	$470,000	$470,000	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.
133	WLFL8 COUNTYLINE TO A STREET	White	FCD Const	$24,004,419	$23,380,886	$0	$623,533		$623,533	$0	$0	$0	$0	$0	$623,533	$24,004,419	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.
134	WLFL9 RED CREEK ACQUISITIONS	White	FCD Acqu/Elev	$0	$0	$0	$0		$0	$0	$0	$0	$0	$100,000	$100,000	$100,000	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 willingness.
135	WLFL9 RIGHT BANK LEVEE SETBACK	White	FCD Const	$12,151,199	$11,009,469	$1,079,358	$1,141,730		$2,221,088	$1,989,187	$7,887,849	$5,797,495	$69,556	$0	$17,965,175	$28,974,644	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.
136	WLFL9 SLIPPERY CREEK ACQ	White	FCD Acqu/Elev	$0	$0	$0	$0	$100,000	$100,000	$0	$0	$0	$0	$0	$100,000	$100,000	Acquire property at the confluence of Slippery Creek and the White River.
137	WLFL9 WHITE - GREENWATER ACQ	White	FCD Acqu/Elev	$0	$0	$0	$0		$0	$0	$0	$0	$0	$100,000	$100,000	$100,000	This project would acquire flood prone residence along the White River near the Greenwater River.
138	**White Subtotal**			$36,625,618	$34,390,355	$1,079,358	$2,235,263	$100,000	$3,414,621	$1,989,187	$7,887,849	$5,797,495	$69,556	$200,000	$19,358,708	$53,749,063	
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141	WLFL5 SOUTH PARK PUMPSTATION	Seattle	Agreement	$6,001,331	$1,786,262	($4,215,069)	$4,215,069	$43	$0	$0	$4,718,738	$0	$0	$0	$4,718,738	$6,505,000	Cost-share construction of pump station to reduce flooding in industrial area. Allocation of funds by year may be revised based on updated project schedule. Implemented by the City of Seattle. Expenditure forecast to be updated based on current project schedule.
142	WLFL5 S PARK DRAINAGE IMPROVEMENTS	Seattle	Agreement	$1,000,000	$219,074	$0	$780,926		$780,926	$1,550,000	$1,455,000	$0	$0	$0	$3,785,926	$4,005,000	The South Park Drainage Conveyance Improvements Project will install a formal conveyance system in the streets, to get flows to the pump station. The conveyance improvements will work in conjunction with the Pump Station.
143	**Seattle Subtotal**			$7,001,331	$2,005,336	($4,215,069)	$4,995,995	$43	$780,926	$1,550,000	$6,173,738	$0	$0	$0	$8,504,664	$10,510,000	
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146	WLFLX CORRIDOR PLN DESIGN/CONST PLAC	Countywide	FCD Const	$142,610	$0	$0	$142,610		$142,610	$0	$0	$0	$0	$27,000,000	$27,142,610	$27,142,610	Placeholder for corridor plan implementation project(s).
147	**Countywide Corridor Plan Imp Subtotal**			$142,610	$0	$0	$142,610	$0	$142,610	$0	$0	$0	$0	$27,000,000	$27,142,610	$27,142,610	
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150	WLFLG FLOOD REDUCTION GRANTS	Countywide	Grant	$11,600,690	$7,208,617	$3,085,306	$4,392,073		$7,477,379	$3,161,211	$3,232,718	$3,303,258	$3,374,100	$3,445,293	$23,993,959	$31,202,576	Competitive grant program for flood reduction projects. Increases as a proportion of total FCD tax revenue.
151	WLFLG WRIA GRANTS	Countywide	Grant	$23,099,255	$15,445,614	$4,620,525	$7,653,641		$12,174,166	$4,654,617	$4,792,687	$4,934,853	$5,081,235	$5,231,960	$36,869,518	$52,315,133	Cooperative Watershed Management Grant Program, priorities recommended by watershed groups. Increase based on assumed inflation rate.
152	WLFLM EFFECTIVENESS MONITORING	Countywide	FCD Const	$2,218,519	$1,892,356	$1,076,734	$326,163		$1,402,897	$702,778	$830,323	$813,840	$767,476	$510,698	$5,028,112	$6,920,468	Evaluation of capital projects to determine effectiveness and identify project design improvements.
153	WLFLO SUBREGNL OPPRTNTY FUND	Countywide	Grant	$43,683,271	$31,603,504	$5,738,670	$12,079,766		$17,818,436	$5,879,852	$6,012,856	$6,144,060	$6,275,827	$6,408,245	$48,539,276	$80,142,781	Allocation to all King County jurisdictions for flooding, water quality, or watershed management projects. Increases as a proportion of total FCD tax revenue.
154	WLFLX CENTRAL CHARGES	Countywide	FCD Const	$781,493	$704,514	$130,000	$76,979		$206,979	$132,600	$135,252	$137,957	$140,716	$143,531	$897,034	$1,601,549	Central charges related to the FCD's capital fund.
155	WLFLX FLOOD EMERGENCY CONTGNCY	Countywide	FCD Const	$800,917	$415,734	$0	$385,683		$385,683	$250,000	$250,000	$250,000	$250,000	$250,000	$1,635,683	$2,052,417	Contingency for emergency response actions during a flood event.
156	**Countywide Subtotal**			$82,184,145	$57,269,640	$14,551,235	$24,914,304	$0	$39,465,539	$14,781,058	$15,253,836	$15,584,068	$15,889,354	$15,989,726	$116,963,583	$174,233,423	
157																	
158	**Grand Total**			**$349,149,045**	**$250,509,934**	**$53,496,926**	**$97,639,111**	($1,323,561)	**$149,812,487**	**$69,691,091**	**$87,510,554**	**$44,311,625**	**$38,824,458**	**$61,980,837**	**$462,131,062**	**$703,164,224**	