King County

1200 King County Courthouse
516 Third Avenue
Seattle, WA 98104

KING COUNTY

Signature Report

September 5, 2018

FCD Resolution FCD2018-08

Proposed No. FCD2018-08.1 **Sponsors**

A RESOLUTION relating to the operations and finances of the King County Flood Control Zone District; authorizing the expenditure of District funds for projects and activities in accordance with the Flood Reduction Grants.

WHEREAS, the King County Flood Control Zone District ("District") adopts an annual work program, budget, operating budget for King County, capital budget and six-year capital improvement program pursuant to chapter 86.15 RCW, and

WHEREAS, in 2014, the District created the Flood Reduction Grant fund to provide grant funding for projects with flood reduction benefits, including, but not limited to, surface water overflows, near shore flooding, lake flooding due to outflow blockage, or the clearance of clogged agricultural drainage systems, and

WHEREAS, the District desires to continue funding projects in the Flood Reduction Grant fund, and

WHEREAS, in establishing the District's 2018 budget, the District provided $3,192,994 in funding in the Flood Reduction Grant fund, and

WHEREAS, a selection committee composed of the assistant director of the water and land resources division of the King County department of natural resources and parks, the District's executive director and a former Newcastle councilmember reviewed the 2018 applications for grant funds and made a recommendation regarding them to the

District, and

WHEREAS, the District's executive committee reviewed the selection committee's recommendations, and

WHEREAS, based on the recommendation of the selection committee, as considered and modified by the District's executive committee, the board of supervisors desires to approve 2018 grant fund applications and projects;

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

SECTION 1. The board of supervisors approves the 2018 King County Flood Reduction Fund Grant Projects described on Attachment A to this resolution.

FCD Resolution FCD2018-08 was introduced on and passed by the King County Flood Control District on 9/4/2018, by the following vote:

Yes: 9 - Mr. von Reichbauer, Mr. Gossett, Ms. Lambert, Mr. Dunn, Mr. McDermott, Mr. Dembowski, Mr. Upthegrove, Ms. Kohl-Welles and Ms. Balducci
No: 0
Excused: 0

KING COUNTY FLOOD CONTROL ZONE DISTRICT
KING COUNTY, WASHINGTON

Reagan Dunn, Chair

ATTEST:

Melani Pedroza, Clerk of the Board

Attachments: A. Flood Reduction Grant Recommendations, August 15, 2018

Attachment A: Flood Reduction Grant Recommendations, August 15, 2018

APPLICANT	PROJECT NAME	DESCRIPTION	WATER BODY/ WRIA	KC COUNCIL DISTRICT	REQUESTED AMOUNT	LEVERAGE	OFFER
Black Diamond, City of	*Covington Creek Culvert Rehabilitation*	Design and install smooth lining with salmon passage enhancement for three 6-foot corrugated metal culverts that outlet from Lake Sawyer into Covington Creek crossing under 224th Ave. SE. These culverts are deteriorating at the bottom. This project would also provide headwalls to protect the road embankment and channel flows through the culverts.	Covington Creek/ WRIA 9	7 & 9	$ 600,000	$ -	$ 110,000
Delridge Neighborhoods Development Association	*Delridge Wetland Restoration and Stewardship Project Phase 2*	Develop Delridge Wetland Park, including the construction of a bio-filtration swale to intercept storm water before it enters the wetland. Work in support of SDOT & SPU to transform existing green stormwater infrastructure (gsi) for the neighborhood to decrease flooding of neighbor yards and roadways, and create a safe route to school between Delridge Wetland Park and K-8 STEM School at Louisa Boren.	Longfellow Creek/ WRIA 9	8	$423,170	$69,000	$212,000
Drainage Improvement District #7	*Levee Rebuilding in Cherry Valley - Design, Permits, and Construction*	Building from the survey, getotecnical work, and design work performed during the feasibility study funded by KCFCD, we will submit permit applications, perform additional geotechnical investigation, develop final design, and implement the flood control levee improvements along the left bank of Cherry Creek within the Snoqualmie River floodplain.	Cherry Creek/ WRIA 7	3	$608,000	$400,000	$203,000
ECOSS - Environmental Coalition of South Seattle	*Green-Duwamish Business Green Stormwater Infrastructure Solutions*	Conduct a planning and design phase for a large-scale Green Stormwater Infrastructure demonstration site on an industrial and manufacturing business property. The result of this project will include a final plan to install GSI features that will address flooding, polluted runoff and sewer overflows in the area and support implementation. It will also be utilized as an educational tool for businesses and community members to increase awareness of GSI solutions to flood control and stormwater runoff.	Green-Duwamish / WRIA 9	8	$100,000	$127,650	$100,000
Enumclaw	*Battersby Culverts Replacement*	This project will revise drainage to and replace two aging culverts that drain a large area of the City of Enumclaw. These failing culverts cause frequent flooding between SR 410 and Battersby Avenue. This project will also improve fish passage.	Green River/ WRIA 9	9	$202,390	$ -	$ 20,000

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APPLICANT	PROJECT NAME	DESCRIPTION	WATER BODY/ WRIA	KC COUNCIL DISTRICT	REQUESTED AMOUNT	LEVERAGE	OFFER
Hidden Valley Property Association	*Retaining Walls South Fork Hamm Creek*	This project involves shoring up the road on Country Club Lane S with soldier piles and/or micro-piles and lagging to prevent erosion and debris on the South Fork of Hamm Creek.	S. Fork Hamm Creek/ WRIA 9	8	$146,785	$14,678	$20,000
Issaquah, City of	*East Lake Sammamish Parkway - 56th St. to 51st St. Conveyance Improements Design*	The existing stormwater conveyance along East Lake Sammamish Parkway between SE 56th St. and SE 51st St. is underperforming and causing street flooding during both high-intensity and long-duration lower intensity storm events. A previous phase evaluated existing conditions and identified preferred alternatives for mitigating the flooding. This phase of the project will complete final design and environmental permitting of the City-preferred alternative.	Park Hill Crk. Drainage Basin/ WRIA 8	3	$200,000	$70,000	$200,000
Kent, City of	*Southeast 267th St. Culvert Replacement*	The project will replace a deteriorating culvert that passes flows from the Upper Mill Creek Dam to the main channel of Upper Mill Creek. The existing culvert is in poor condition, places SE 267th St. at risk of failure, and causes a flood risk to properties adjacent to the culvert. A replacement culvert will resolve these issues.	Mill Creek/ WRIA 9	5	WITHDREW APPLICATION		
King Conservation District	*KCD Agricultural Drainage Project - Phase 5*	This project builds on four years of KC FCD grants to develop and implement an expanded set of services to facilitate increased farmer participation in King County's Agricultural Drainage Assistance Program (ADAP). Key elements include landowner outreach, dredging cost share assistance to landowners, and project monitoring. We propose an extension of funding for KCD's partnering role with King County to increase support for ADAP projects and establish a long-term approach to funding landowner participation in agricultural drainage projects.	Ag ditches in WRIAs 7, 9, 10	3, 7, 9	$218,686	$46,399	$109,000
King County DNRP, Water & Land Resources	*May Creek Tributary 291A Sediment Management - Phase 2*	The purpose of this project is to reduce the sediment load reaching May Creek from Tributary 291A and associated flooding in May Creek. Phase 1 of this work was to identify potential locations for sediment facilities for Tributary 291A. Phase 2 of the project is for property acquisition as well as identifying design alternatives to be documented in a pre-design report.	May Creek/ WRIA 8	9	$257,250	$0	* $0

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APPLICANT	PROJECT NAME	DESCRIPTION	WATER BODY/ WRIA	KC COUNCIL DISTRICT	REQUESTED AMOUNT	LEVERAGE	OFFER
King County DNRP, Water & Land Resources	*Sub-Pavement Infiltration*	Develop and construct a Sub-Pavement Infiltration (SPI) system that provides runoff collection and water quality treatment prior to infiltration, where typical permeable pavement with direct infiltration does not. Design will include conventional pavement surface in lieu of permeable pavement, avoiding the maintenance and structural issues common with permeable pavement.	White-Puyallup Rivers/ WRIA 10	7	$160,317	$0	$0
King County DOT, Road Services	*Fifteen Mile Creek Bridge #493C*	The project is to conduct a feasibility analysis to identify potential solutions to bank erosion and backwatering problems at this bridge on SE May Valley Rd., including bridge type, size, and location report.	Fifteen Mile Crk. / WRIA 8	9	$200,000	$0	* $0
Kirkland, City of	*Finn Hill/Denny Creek Flood Reduction*	Reroute stormwater system and install stormwater detention to resolve neighborhood-scale flooding and to protect Denny Creek.	Denny Creek / WRIA 8	1, 6	$400,000	$300,600	$200,000
Lake Forest Park	*Lyon Creek Arterial Culvert Replacement - NE 178th St.*	Replace a 65-ft long corrugated metal pipe culvert on Lyon Creek that is collapsing and corroded and is threatening the heavily used arterial of NE 178th St. A 19-to-20-ft wide concrete box culvert will be designed and constructed to replace the failing culvert. This will ensure that NE 178th St. doesn't collapse into Lyon Creek causing regional flooding.	Lyon Creek/ WRIA 8	1	$400,000	$1,168,000	$100,000
Mid Sound Fisheries Enhancement Group	*Longfellow Creek Community Flood Control Design Phase II*	In this second phase we will expand the geographical scope of the design, collect additional topographic data for the expanded area, collect geotechnical data to determine appropriate culvert or bridge footings, bring all new areas to a 60 percent design phase, and prepare and submit the necessary permit applications for the construction project. This project is intended to develop a design that will significantly reduce flood events on 24th Ave SW, which is currently flooding almost annually. This project will also improve public access and safety, improve habitat in the stream, and increase overall livability in this diverse, underserved neighborhood in West Seattle.	Longfellow Creek/ WRIA 9	8	$238,980	$27,450	$180,000

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APPLICANT	PROJECT NAME	DESCRIPTION	WATER BODY/ WRIA	KC COUNCIL DISTRICT	REQUESTED AMOUNT	LEVERAGE	OFFER
Mountains to Sound Greenway Trust	*Ballinger Open Space Restoration*	The Greenway Trust will partner with the City of Shoreline to undertake ecological restoration at the Ballinger Open Space site in northeast Shoreline to alleviate flood concerns associated with an undersized culvert and to provide additional benefits in this underutilized public open space. We will improve ecological conditions within the Open Space and local water quality by clearing invasive weeds from 3+ acres and planting native trees and shrubs with a focus on installing native conifers.	Ballinger Crk./ WRIA 8	1	$77,747	$21,000	$40,000
Newcastle, City of	*S-038 Mile Post Pipe Repair*	An existing 12-inch corrugated metal pipe (CMP) has damage and reducd capacity. The pipe receives runoff from a public street and is located on private property within an existing easement. Nearby properties have expeienced flooding. The project will repace the 125-foot long pipe and repair another section of pipe by reinforcing it with an iron sleeve.	May Creek Basin / WRIA 8	9	$67,000	$36,000	$67,000
Redmond, City of	*Mackey Creek Restoration*	Mackey Creek has been overflowing its banks for many years, flooding nearby park facilities and trails. Several small projects have been implemented starting in the 1990's without solving the problem. When completed, components of this project will control flooding of the park's improvements; enhance riparian habitat; and, restore fish passage through the site.	Mackey Creek, trib. to Bear Creek/ WRIA 8	3, 6	$175,800	$330,000	$0
Redmond, City of	*Willows Creek Culvert at Willows Road*	The Willows Creek culvert, under Willows Road, will be replaced with a 12' wide x 5' high, 83' long three-sided concrete box culvert, meeting current standards for capacity and fish passage. The existing Willows Creek culvert at Willows Road is an undersized and worn corrugated metal pipe arch culvert.	Willow Creek, trib. To Sammamish River/ WRIA 8	3, 6	$350,000	$225,000	$175,000
Renton, City of	*Rainier Ave N. and Benson Road S. Culvert Replacement*	Replace two culverts located near Rainier Ave N., and crossing Benson Rd. S. The culverts are in structurally poor condition and near collapse as a result of their current condition. Project benefits include prevention of structural failure and the resulting upstream flooding and street flooding.	Lake Washington & Green River / WRIAs 8 & 9	5, 9	$80,000	$25,000	$80,000

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APPLICANT	PROJECT NAME	DESCRIPTION	WATER BODY/ WRIA	KC COUNCIL DISTRICT	REQUESTED AMOUNT	LEVERAGE	OFFER
Sammamish, City of	*Zackuse Creek Flood Reduction and Fish Passage*	The project includes 1) replacement of an aging, concrete culvert on East Lake Sammamish Parkway and 2) realignment and restoration of approximately 400 feet of Zackuse Creek upstream of the new culvert. The existing stream channel upstream of the culvert intersects the Parkway at a 90 degree angle which has caused severe erosion of the shoulder and has compromised the stability of the road and shoulder.	Lake Sammamish/ WRIA 8	3	$400,000	$2,183,554	$200,000
SeaTac	*South 221st St. Drainage Improvements*	Design and construct a drainage conveyance system to intercept drainage flows on Military Road causing erosion of the embankment on Military Road and private properties as well as localized flooding of septic systems at nearby residences.	Lower Green River / WRIA 9	5, 8	$244,000	$49,960	$244,000
Seattle Public Utilities	*Puget Way Culvert Replacement - Construction*	This project will replace an aging and undersized creek culvert under Puget Way SW. This project is expected to reduce flooding of roadways and private property.	Puget Creek/ WRIA 9	1, 2, 4, 8	$400,000	$1,474,000	$100,000
Seattle Public Utilities	*Lower Cedar River Stormwater Improvement*	Stormwater from Highway 169 and the adjacent hillside on the south side of the highway is collected by a culvert and drains onto thist SPU-owned property, resulting in seasonal flooding of the Cedar River Regional Trail, as well adjacent SPU property. SPU seeks to make on-site drainage channel and riparian wetland improvements so that problematic stormwater can be detained and infiltrated in riparian wetlands, and created stream channels on-site, before it discharges into the mainstem of the Cedar River. This project will resolve the local flooding and water quality problems by improving stormwater drainage.	Cedar River/ WRIA 8	1, 2, 4, 8, 9	$87,600	$40,000	$0
Skykomish, Town of	*3rd Street Drainage Improvements*	Existing 10-inch and 12-inch storm sewer pipes in 3rd St. North are under capacity and will be replaced. Approximately 335 feet of new 12-inch CPEP pipeline will be installed on the east side of 3rd Street, from the intersection with East Railroad Ave to an outfall on the south bank of the river. This work is needed to alleviate frequent flooding of East Railroad Ave and an adjacent residential property.	Skykomish River/ WRIA 7	3	$99,000	$4,600	$99,000

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APPLICANT	PROJECT NAME	DESCRIPTION	WATER BODY/ WRIA	KC COUNCIL DISTRICT	REQUESTED AMOUNT	LEVERAGE	OFFER
Snoqualmie, City of	*Northern St. Neighborhood Home Elevations*	Elevate three flood-prone properties around the Northern Street area.	Kimball Creek, Snoq. River/WRIA 7	3	$343,350	$6,650	* $0
Snoqualmie, City of	*Phase 1 Northern Street Culvert Replacement Design*	This project will provide design and permitting to replace an undersized and failed culvert and raise a street section to remove a 6ft dip in the roadway. Project design will help alleviate roadway section flooding as this is one of the first city roadways to become impassable during frequent flood events.	Kimball Creek, Snoqualmie River/ WRIA 7	3	$130,000	$50,000	$20,000
Snoqualmie Valley Preservation Alliance	*Floodzilla 2.0 Rollout - Access for All*	The SVPA's team of volunteer technologists have developed an innovative network of low-cost, remote sensing gages to provide farms, residents, and others with detailed localized information about floods while they are happening, and to inform siting and design of future flood reduction projects. The project includes 30-40 gages across an area that is currently served by only one USGS gage. We have a working pilot model, including 20 gages installed and sending data; we seek funding to scale the system to make it usable, reliable, and accessible by all.	WRIA 7	3	$118,000	$121,200	$118,000
Snoqualmie Valley Watershed Improvement District	*SVWID Drainage Improvement Program 2018-2020*	The SVWID Drainage Improvement Program 2018-2020 includes a work plan for implementation of the SVWID network analysis project funded by the King County Flood Control District in 2016. The 2018-2020 work plan includes final engineering design, permitting, and implementation for three drainage maintenance projects scoped in 2017-2018, as well as development of conceptual designs for two projects requiring completion of an alternatives analysis. The work plan also includes outreach and initial site planning for drainage projects in SVWID drainage basins #1,4,7,6.	Lower Snoqualmie River/ WRIA 7	3	$632,347	$52,909	$125,000

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APPLICANT	PROJECT NAME	DESCRIPTION	WATER BODY/ WRIA	KC COUNCIL DISTRICT	REQUESTED AMOUNT	LEVERAGE	OFFER
Stewardship Partners	*Carnation Elementary School Rain Garden and Stormwater Education, Phase II*	Stewardship Partners proposes to install an additional rain garden at Carnation Elementary School and to conduct community outreach to raise awareness and promote green infrastructure to reduce flooding in the Snoqualmie Valley. The goal of this project is to expand on previous efforts to reduce flooding in the Snoqualmie Valley by reducing stormwater flows coming from impervious surfaces in developed areas in the Valley. The first rain garden installation was overwhelmingly successful and Carnation Elementary School approached us to install another.	Snoqualmie Basin/ WRIA 7	3	$25,418	$10,000	$25,418
Wild Fish Conservancy	*300th Street Culvert Replacement Phase IV - Construction*	In an effort to reduce flooding across 300th Ave. NE and adjacent lands, Wild Fish Conservancy will replace two undersized culverts crossing 300th Ave NE with 50ft – 70ft wide bridges, raise a 400ft long section of the 300th Ave NE roadbed, remove a field access road and associated undersized culverts, and stabilize areas disturbed during construction with bioengineering using native vegetation. This proposal is for construction.	N. Fork Cherry Creek, WRIA 7	3	$468,444	$104,600	$0
World Relief Seattle	*Hillside Paradise Parking Plots Community Garden Flood Mitigation*	WRS in partnership with Hillside Church, King Conservation District, The Nature Conservancy, Construction for Change and Stone Soup Gardens has built a community garden to serve refugees and immigrants out of a 1-acre paved parking lot. The garden is on a hillside and due to the increased urbanization of land upslope and impervious surfaces onsite, the property consistently floods during the rainy season in the lower lot; during larger rain events, the flooding extends onto adjoining properties. WRS will design and build a bioswale, retention pond, and food forest to mitigate the flooding while providing food to provide sustainable benefits to the entire community.	Mill Creek/ WRIA 9	5	$461,150	$45,252	$405,576
Yarrow Point, City of	*Yarrow Point Storm Grate Replacement*	Remove and replace 200 old stormwater catch basin grates with new vaned grates. Create and install stickers near each structure to indicate drains lead directly to the lake.	Lake Washington/ WRIA 8	6	$40,000	$0	$40,000
				TOTALS	**$ 8,355,434**	**$ 7,003,502**	**$ 3,192,994**

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