



Whatcom County

COUNTY COURTHOUSE
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Agenda Bill Master Report

File Number: AB2019-456

File ID:	AB2019-456	Version:	1	Status:	Approved
File Created:	08/27/2019	Entered by:	RKlein@co.whatcom.wa.us		
Department:	Public Works Department	File Type:	Resolution Requiring a Public Hearing		
Assigned to:	Council	Final Action:	09/24/2019		
Agenda Date:	09/24/2019	Enactment #:	RES 2019-041		

Primary Contact Email: sdraper@co.whatcom.wa.us

TITLE FOR AGENDA ITEM:

Resolution adopting the Six-Year Water Resources Improvement Program (WRIP), 2020-2025

SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:

Resolution by the Whatcom County Flood Control Zone District Board of Supervisors adopting the Six-Year Water Resources Improvement Program (WRIP) for 2020-2025. The adoption by resolution is pursuant to the Revised Code of Washington (RCW 86.15.110)

HISTORY OF LEGISLATIVE FILE

Date:	Acting Body:	Action:	Sent To:
09/10/2019	Council	INTRODUCED FOR PUBLIC HEARING	Council
09/24/2019	Council	APPROVED	

PROPOSED BY: Public Works

INTRODUCED: 9/10/19

RESOLUTION NO. 2019-041

(A Resolution of the Whatcom County Flood Control Zone District Board of Supervisors)

**WHATCOM COUNTY FLOOD CONTROL ZONE DISTRICT
SIX-YEAR WATER RESOURCES IMPROVEMENT PROGRAM
FOR THE YEARS 2020 THROUGH 2025**

WHEREAS, pursuant to RCW 86.15.110, flood control or storm water control improvements may be extended, enlarged, acquired, or constructed by a zone pursuant to a resolution adopted by the Board of Supervisors; and

WHEREAS, Whatcom County Public Works Department on behalf of the Flood Control Zone District has prepared a Six-Year Water Resources Improvement Program for adoption; and

WHEREAS, pursuant to RCW 86.15.120, the supervisors shall hold a public hearing prior to adopting the resolution; and

WHEREAS, the Six-Year Water Resources Improvement Program attached hereto as Exhibit "A" has been reviewed and determined to be consistent with the County's comprehensive plan and is consistent with the following plans:

- Lower Nooksack River Comprehensive Flood Hazard Management Plan, October 1999
- Jones Creek Debris Flow Study, March 2004
- WRIA 1 Salmon Recovery Plan, October 2005
- Birch Bay Comprehensive Stormwater Plan, July 2006
- Lake Whatcom Comprehensive Stormwater Plan, March 2008
- Lake Samish Basin Comprehensive Stormwater Plan, July 2012
- Lake Whatcom Management Program 2020-2024 Work Plan, in preparation
- Nooksack River System-Wide Improvement Framework, June 2016; and

WHEREAS, pursuant to RCW 86.15.110, for constructed improvements the preliminary engineering studies are on file with the Whatcom County Public Works Department; and

WHEREAS, pursuant to RCW 86.15.110, the estimated cost of the acquisition or construction of the improvement, together with supporting data is included in the Six-Year Water Resources Improvement Program; and

WHEREAS, the improvements will benefit one or more zones, subzones and the county as a whole;

NOW, THEREFORE, BE IT RESOLVED by the Whatcom County Flood Control Zone District Board of Supervisors as follows:

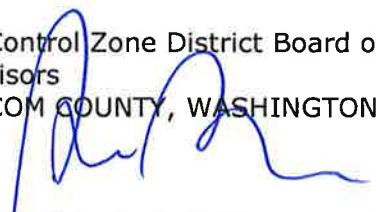
That the Whatcom County Flood Control Zone District Six-Year Water Resources Improvement Program for the years 2020 through 2025, which is attached hereto as Exhibit "A", is hereby adopted.

APPROVED this 24th day of September, 2019.

ATTEST:


Dana Brown-Davis, Clerk of the Council

Flood Control Zone District Board of Supervisors
WHATCOM COUNTY, WASHINGTON


Rud Browne, Chair

APPROVED AS TO FORM:

Christopher Quinn, Senior Deputy Prosecuting Attorney

Item No.	Project Description	Purchase ID No.	BE3	Previous Expenditures		2020		2021		2022		2023		2024		2025		Total
				Phase	Amount	Phase	Amount	Phase	Amount	Phase	Amount	Phase	Amount	Phase	Amount	Phase	Amount	
1	Northshore Drive Edgewater Lane (LW CP-18): System upgrades to improve water quality by installing water quality treatment facilities and installing check dams to reduce ditch erosion	14-002	62.2	PE \$ 180,000 REET RW \$ 10,000 REET	PE RW	PE RW	\$ 180,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 620,000
2	Silver Beach Creek Phase I (LW CS9 CP-04, CP-05): Phase I install WQ treatment system, Phase II, Main channel restoration below hillside using natural vegetation	07-095	80.5	PE \$ 10,000 REET RW \$ 10,000 REET	PE RW	PE RW	\$ 10,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 1,160,000
3	Sudden Valley (LW CS9 CP-16, CP-17): Drainage systems upgrades and outlet reverts	13-004	46.3	PE \$ 10,000 REET RW \$ 10,000 REET	PE RW	PE RW	\$ 10,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 780,000
4	Lowell Drive and Cedarbrook Court (LW CP-19): Construction 2022 find of pipe, media filtration, and natural drainage system improvements	14-003	62.2	PE \$ 10,000 REET RW \$ 10,000 REET	PE RW	PE RW	\$ 10,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 790,000
5	Green Cove Lane/Lakeside Street (LW CP-20): Construction 2023 System upgrade to improve water quality-sedimentation swales, filter vaults, media filter drains, and rain gardens	15-002	58.2	PE \$ 10,000 REET RW \$ 10,000 REET	PE RW	PE RW	\$ 10,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 620,000
6	South Bay Drive Construction 2024 System upgrade to improve water quality-biofiltration swales, reduce ditch erosion	16-010	62.2	PE \$ 10,000 REET RW \$ 10,000 REET	PE RW	PE RW	\$ 10,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 840,000
7	Strawberry Point/Lake Whatcom Blvd Construction 2025 System upgrade to improve water quality-vaults, biofiltration swales, channel restoration	17-001	62.2	PE \$ 10,000 REET RW \$ 10,000 REET	PE RW	PE RW	\$ 10,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 145,000
BIRCH BAY WATERSHED & AQUATIC RESOURCES MANAGEMENT																		
8	Harkoway Road Drainage Improvements (CP-1): Install new low-level system along Birch Bay Drive (CP-2, H-1) Upgrade culverts and install new high level system along Harkoway Road to carry upland water directly to Birch Bay	07-217	52.0	PE \$ 360,000 BAYWAM RW \$ 200,000 REET	PE RW	PE RW	\$ 200,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 1,610,000
9	Semahmoo Drive Drainage Improvements - North (BP-2) and South (BP-3): Upgrade culverts and re-establish roadside ditch on east side of Semahmoo Drive	18-009 18-010	50.3	PE \$ 10,000 BAYWAM RW \$ 180,000 BAYWAM	PE RW	PE RW	\$ 180,000 BAYWAM	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 385,000
10	Lora Lane Drainage & Tide Gate Modifications (TC1-2): Replace existing tide gate structure and repair embankment, install Type 2 CB and culvert under Birch Bay Drive	18-008	42.5	PE \$ 10,000 BAYWAM RW \$ 10,000 REET	PE RW	PE RW	\$ 10,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 440,000
11	Holeman Avenue Storm Drain Improvements (PW-1): Replace CBS, upgrade culverts, re-establish ditch on Holeman Ave near Birch Bay Drive	07-242	37.8	PE \$ 200,000 BAYWAM RW \$ 200,000 REET	PE RW	PE RW	\$ 200,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 255,000
12	Woodridge Ave & Sunset Drive Drainage Improvements (TC-2): Improve drainage system to reduce local flooding and incorporate water quality treatment	13-007	52.2	PE \$ 75,000 BAYWAM RW \$ 10,000 REET	PE RW	PE RW	\$ 10,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 1,220,000
13	Hilledale Drainage Improvements, Phase 1 (H-1-C-1): Upgrade pipes, replace CB, install new drain line, replace blind tee connections on Morgan, Cottonwood and Birch Bay Drives			PE \$ 100,000 BAYWAM RW \$ 10,000 REET	PE RW	PE RW	\$ 10,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 750,000
14	Morrison Ave & Terrill Drive Drainage Improvements (TC-2-1): Install new storm drain line on Morrison Ave and Willow Drive, replace and regrade storm drain system at Terrill Drive			PE \$ 150,000 REET RW \$ 50,000 REET	PE RW	PE RW	\$ 50,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 200,000
15	Norman Place Drainage Improvements (BP-1): Upgrade pipes, replace CBS, and install energy dissipater at pipe outfall on Norman Place			PE \$ 80,000 BAYWAM RW \$ 50,000 BAYWAM	PE RW	PE RW	\$ 50,000 BAYWAM	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 80,000
16	Birch Bay Drive & Pedestrian Facility Project: BAYWAM contribution toward stormwater improvements as part of larger road fund project in Birch Bay	07-030	72.1	PE \$ 250,000 BAYWAM RW \$ 10,000 REET	PE RW	PE RW	\$ 10,000 REET	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	PE RW	\$ 250,000

Item No.	Project Description	Database ID No.	BES	Previous Expenditures		2020		2021		2022		2023		2024		2025		Total
				Project Amount	Source	Project Amount	Source	Project Amount	Source	Project Amount	Source	Project Amount	Source	Project Amount	Source	Project Amount	Source	
17	Shallow Shore Drive Drainage Improvements	18-007	44.4	PE RW CN		PE RW CN	\$ 50,000	NEET										\$ 230,000
RIVER & FLOOD																		
18	Marretta Acquisition -- Acquire properties in repetitive flood loss area	07-002	79.6	RW CN	\$ 802,000 \$ 117,000	FEWA Fed/State grant ESRP grant	RW CN	\$ 96,000 \$ 20,000	FEWA Fed/State grant FCZD	RW CN	\$ 100,000 \$ 235,000	RW CN	\$ 100,000 \$ 235,000	RW CN	\$ 100,000 \$ 235,000	RW CN	\$ 100,000 \$ 235,000	\$ 1,000,000
19	Truck Road Emergency Erosion Protection -- Install passive riprap to protect road; mitigation needed in 2020	18-002	59.4	PE CN	\$ 16,000 \$ 455,000	FCZD/Roads (50/50) FCZD/Roads (50/50)	PE CN	\$ 50,000 \$ 460,000	FCZD/Roads (50/50) FCZD/Roads (50/50)	PE CN	\$ 250,000 \$ 1,000,000	PE CN	\$ 250,000 \$ 1,000,000	PE CN	\$ 250,000 \$ 1,000,000	PE CN	\$ 250,000 \$ 1,000,000	\$ 1,000,000
20	Abbot Levee Erosion Protection -- Construct interim measures for erosion protection for levee and adjacent road	18-005	66.5	PE CN	\$ 28,000 \$ 75,000	ESRP grant FCZD/Roads (50/50)	PE CN	\$ 50,000 \$ 460,000	FCZD/Roads (50/50) FCZD/Roads (50/50)	PE CN	\$ 250,000 \$ 1,000,000	PE CN	\$ 250,000 \$ 1,000,000	PE CN	\$ 250,000 \$ 1,000,000	PE CN	\$ 250,000 \$ 1,000,000	\$ 1,000,000
21	Red River Levee Stabilization -- Restore levee prism and bank protection (SWIF project)	16-004	52.9	PE CN	\$ 28,000 \$ 200,000	FCZD FCZD/Levee**	PE CN	\$ 30,000 \$ 15,000	FCZD	PE CN	\$ 15,000 \$ 250,000	PE CN	\$ 15,000 \$ 250,000	PE CN	\$ 15,000 \$ 250,000	PE CN	\$ 15,000 \$ 250,000	\$ 1,000,000
22	Twin View Levee Improvements -- Widened levee crest and larger bafflepiles at two sites (SWIF project)	16-002	50.3	PE CN	\$ 50,000 \$ 50,000	FCZD FCZD	PE CN	\$ 75,000 \$ 75,000	FCZD	PE CN	\$ 1,000,000 \$ 1,000,000	PE CN	\$ 1,000,000 \$ 1,000,000	PE CN	\$ 1,000,000 \$ 1,000,000	PE CN	\$ 1,000,000 \$ 1,000,000	\$ 1,000,000
23	Lyndon Levee Improvement -- Combine drainages and reduce two culverts through levee with one larger culvert (SWIF project) and repair 2 damaged levee sites (USACE)	16-003	64.5	PE CN	\$ 122,000 \$ 26,000	FCZD FCZD	PE RW	\$ 33,500 \$ 225,000	FCZD DOE grant	PE RW	\$ 15,000 \$ 300,000	PE RW	\$ 15,000 \$ 300,000	PE RW	\$ 15,000 \$ 300,000	PE RW	\$ 15,000 \$ 300,000	\$ 1,000,000
24	Bertrand Canal Levee Stabilization -- Restore right and left levees and install bank protection (SWIF project)	16-005	54.4	PE CN	\$ 600,000 \$ 140,000	FCZD FCZD/Roads (50/50)	PE CN	\$ 77,000 \$ 200,000	FCZD FCZD/Roads (50/50)	PE CN	\$ 35,000 \$ 75,000	PE CN	\$ 35,000 \$ 75,000	PE CN	\$ 35,000 \$ 75,000	PE CN	\$ 35,000 \$ 75,000	\$ 1,000,000
25	Jones Creek Debris Flow Protection -- Construct deflection berm and address local access	07-105	70.6	RW CN	\$ 122,000 \$ 26,000	FCZD FCZD	PE RW	\$ 33,500 \$ 225,000	FCZD DOE grant	PE RW	\$ 15,000 \$ 300,000	PE RW	\$ 15,000 \$ 300,000	PE RW	\$ 15,000 \$ 300,000	PE RW	\$ 15,000 \$ 300,000	\$ 1,000,000
26	Abbot Levee Upstream Tie-in -- Extend and realign upstream end of levee (SWIF project)	16-007	70.4	PE RW	\$ 140,000 \$ 13,000	FCZD/Roads (50/50) FCZD/Roads (50/50)	PE RW	\$ 200,000 \$ 200,000	FCZD/Roads (50/50) FCZD/Roads (50/50)	PE RW	\$ 75,000 \$ 75,000	PE RW	\$ 75,000 \$ 75,000	PE RW	\$ 75,000 \$ 75,000	PE RW	\$ 75,000 \$ 75,000	\$ 1,000,000
27	Neeneel Levee Bank Stabilization -- Stabilize oversteepened section of levee (SWIF project)	16-008	49.3	PE CN			PE CN			PE CN	\$ 20,000	PE CN	\$ 20,000	PE CN	\$ 20,000	PE CN	\$ 20,000	\$ 1,000,000
28	Devries Levee Improvements -- Widen and establish full crest width and bafflepiles levee (SWIF project)	19-001	49.3	PE CN			PE CN			PE CN	\$ 25,000	PE CN	\$ 25,000	PE CN	\$ 25,000	PE CN	\$ 25,000	\$ 1,000,000
29	Upper Hampson Levee Improvements -- Widen levee crest and fixaten bafflepiles at two sites and address seepage at a third site (SWIF project)	16-006	70.4	PE RW			PE RW			PE RW	\$ 35,000	PE RW	\$ 35,000	PE RW	\$ 35,000	PE RW	\$ 35,000	\$ 1,000,000
30	Ferndale Levee Improvement -- Reconstruct and realign Ferndale and Treatment Plant Levees to improve level of protection and address deficiencies	07-104	69.9	PE RW CN	\$ 110,000 \$ 110,000	FCZD FCZD	PE RW CN	\$ 60,000 \$ 240,000	FCZD DOE grant	PE RW CN	\$ 250,000 \$ 250,000	PE RW CN	\$ 250,000 \$ 250,000	PE RW CN	\$ 250,000 \$ 250,000	PE RW CN	\$ 250,000 \$ 250,000	\$ 1,000,000
31	Glacier-Gallup Alluvial Fan Restoration -- Remove all or part of Glacier Creek levee and construct setback levee along Gallup Creek	18-006	89.9	PE CN	\$ 30,000 \$ 200,000	FCZD DOE grant	PE RW	\$ 50,000 \$ 200,000	FCZD DOE grant	PE RW	\$ 200,000 \$ 200,000	PE RW	\$ 200,000 \$ 200,000	PE RW	\$ 200,000 \$ 200,000	PE RW	\$ 200,000 \$ 200,000	\$ 1,000,000
32	Floodplain Acquisition -- Acquire key properties for future levee realignment to reduce risk and improve habitat	07-002	79.6	RW CN	\$ 100,000 \$ 100,000	FCZD FCZD	RW CN	\$ 200,000 \$ 200,000	FCZD DOE grant	RW CN	\$ 1,000,000 \$ 1,000,000	RW CN	\$ 1,000,000 \$ 1,000,000	RW CN	\$ 1,000,000 \$ 1,000,000	RW CN	\$ 1,000,000 \$ 1,000,000	\$ 1,000,000
33	Emergency/New Projects -- Typically repair projects that result from new damage, as needed	08-003	Values	PE RW CN			PE RW CN	\$ 25,000 \$ 350,000		PE RW CN	\$ 25,000 \$ 350,000	PE RW CN	\$ 25,000 \$ 350,000	PE RW CN	\$ 25,000 \$ 350,000	PE RW CN	\$ 25,000 \$ 350,000	\$ 1,000,000
NOTE: Numbers in bold are placeholders for projects still being conceived.																		
*Previous expenditures includes work contracted in 2019 that will continually appropriate into 2020.																		
**Construction in 2020 under 2019 continuing appropriation																		
Note 1: Estimated total project cost includes work done by USACE - funded directly by USACE.																		