WHATCOM COUNTY COUNCIL SURFACE WATER WORK SESSION Revision I

September 18, 2018

WHATCOM COUNTY PUBLIC WORKS DEPARTMENT

JON HUTCHINGS Director



NATURAL RESOURCES

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MEMORANDUM

TO:

The Honorable Jack Louws, Whatcom County Executive, and

Honorable Members of the Whatcom County Council

THROUGH:

Jon Hutchings, Director

FROM:

Gary S. Stoyka, Natural Resources Program Manager

DATE:

September 11, 2018

RE:

September 18, 2018 Council Surface Water Work Session

Please refer to the proposed agenda below for the next Surface Water Work Session. Additional supporting documents may be distributed at or before the meeting.

AGENDA

Date:	Tuesday, September 18, 2018		
Time:	10:30 a.m. to 12:00 p.m.		
Place:	Civic Center Garden Level Conference Room		
			-
Time	Topic	Council Action Requested	Background Information Attached
10:30 AM – 10:45 AM	Water Planning Update	Discussion	None
10:45 AM – 11:15 AM	2019-2024 Water Resources Improvement Program	Discussion	2019-2024 Water Resources Improvement Program list of projects
11:15 AM – 12:00 PM	Proposed 2019 Flood Control Zone District Budget	Discussion	Proposed 2019 Flood Control Zone District Budget

If you have questions, please feel free to call me at (360) 778-6218.

cc: Mike McFarlane Beth Bushaw Tyler Schroeder

Sue Blake George Boggs Joe Rutan Jeff Hegedus Josh Fleischmann Roland Middleton Ryan Ericson

Paula Harris John Thompson Karen Frakes Dana Brown-Davis Lonni Cummings John Wolpers Kraig Olason Jennifer Schneider Atina Casas Kristi Felbinger Mike Donahue Erika Douglas Jill Nixon Cathy Craver Mark Personius

tem No.	Project Description	Database ID No.		Previous Expenditures use Amount Source	Phase	2019 Amount Sou	rce Phase	Amount Source	Phase	Amount Source	Phase	Amount Source	Phase	2023 Amount Source	Phase	Amount Source		Total
	LAKE WHATCOM STORMWATER	ID No.	Phi	ise Amount Source	Priesq	Amount 300	rce Priase	Amount 300/6	THE SEC	Amount Source	riesy	Amount Source	11030	Amount 1 Source	Filoaq	Million Source		J 7575
	Agate Heights Estate/Bay Lane, Phases 2 (LW CSP# CIP-11, CIP-12):		PE	\$ 150,000 REET	PE	\$ 50,000 REET	PE		PE		PE		PE		PE			
1	System upgrades to improve water quality-bioinfiltration swales,	07-102	60.5 PE		PE		PE		PE		PE		PE		PE		\$	900,0
-	reduce ditch erosion, media filter drains, and treatment vaults	0. 202	I KW		RW	4	RW		RW		RW		RW CN		RW CN		-	
			CN PE		CN PF	\$ 700,000 REET \$ 160,000 REET	CN PE		CN PE		CN PE		PE		PE		-	
	Northshore Drive, Edgewater Lane (LW CIP-18): System upgrades to		DE		PF	\$ 100,000 REET	PE		PE		PE		PE		PE		١.	
2	improve water quality-biofiltration swales, reduce ditch erosion	14-002	62.2 RW		RW	\$ 10,000 REET	RW		RW		RW		RW		RW		\$	620,0
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		CN		CN		CN \$	450,000 REET	CN		CN		CN		CN			
			PE		PE	\$ 20,000 REET	PE \$	100,000 REET	PE	\$ 30,000 REET	PE \$	120,000 REET	PE		PE			
3	Silver Beach Creek (LW CSP# CIP-04, CIP-06): Main channel	07-095	60.5 RW		RW	\$ 10,000 REET	PE		PE		RW \$	20,000 REET	RW		RW		s	1,160,0
3	restoration below Hillsdale using natural vegetation	07-055	00.5											-			'	-,,-
			CN		CN		RW		CN	\$ 260,000 REET	CN		CN		CN \$	600,000 REET	+-	
	Coulded Welling (LW) CCD4 CID 4C, CID 47), During and Annual Cid 47		PE		PE	\$ 15,000 REET	PE \$	30,000 REET		\$ 120,000 REET	PE PF		PE PE		PE PE		-	
4	Sudden Valley (LW CSP# CIP-16, CIP-17): Drainage systems upgrades and outfall retrofits	13-004	46.3 RW		RW		PE RW \$	10,000 REET	PE RW		RW		RW		RW		\$	750,00
	and outrail retroits		CN		CN		CN	10,000 REE1	CN		CN S	5 575,000 REET	CN		CN			
		-	PE		PE		PE		_	\$ 125,000 REET	PE S		PE		PE		1	
	Lowell Drive and Cedarbrook Court (LW CIP-19): Construction 2022.		l DE		PE		PE		PE		PE		PE		PE			700.00
5	End of pipe, media filtration, and natural drainage system	14-003	62.2 RW		RW		RW		RW	\$ 10,000 REET	RW		RW		RW		,	790,00
	improvements		CN		CN		CN		CN		CN		CN	\$ 580,000 REET	CN			
	Glen Cove Lane/Lakeside Street (LW CIP-20): Construction 2023.		PE		PE		PE		PE		PE \$	125,000 REET	PE	\$ 75,000 REET	PE			
6	System upgrade to improve water quality-bioinfiltration swales, filter	15-002	SR 2 PE		PE		PE		PE		PE		PE		PE		s	620,00
Ü	vaults, media filter drains, and rain gardens	13-002	NW RW		RW		RW		RW		RW \$	10,000 REET	RW		RW		1	0_0,00
	vadits, friedla fried arans, and familiaria		CN		CN		CN		CN		CN		CN		CN \$	410,000 REET	+	
_	South Bay Drive: Constuction 2024. System upgrades to improve		PE		PE		PE		PE		PE		PE	\$ 125,000 REET	PE \$	75,000 REET	١,	220.00
7	water quality -biofiltration swales, reduce ditch erosion	16-010	62.2 PE		PE		PE		PE		PE RW		RW	\$ 20,000 REET	PE RW			220,00
			RW		RW PE		RW PE		RW PE		PE		PE	\$ 20,000 REET	PE S	125,000 REET	+-	
	Strawberry Point/Lake Whatcom Blvd: Constuction 2025. System		DE DE		PE		PE		PE		PE		PE		PE 9	123,000 REE1		
8	upgrades to improve water quality-vaults, biofiltration swales,	17-001	62.2 RW		RW		RW		RW		RW		RW		RW		\$	125,00
	channel restoration		CN		CN		CN		CN		CN		CN		CN			
	BIRCH BAY WATERSHED & AQUATIC RESOURCES MANAGEMENT																	BBWARM
			PE	\$ 137,000	PE	\$ 122,500 BBWARM	PE		PE		PE		PE		PE			
	Birch Bay Drive Outfall Improvement (PW-3) & Birch Bay Drive &		D14/		RW	\$ 10,000 BBWARM	RW		RW		RW		RW		RW			
9	Petticote Lane Storm Drain Improvements (PW-2): Replace CBs,	07-242	37.8 RW												1		\$	1,064,50
	upsize pipes, clean and re-establish roadside ditches on Birch Bay		CN		CN	\$ 200,000 REET	CN		CN		CN		CN		CN		-	
	Drive from Holeman Aveune to Pt. Whitehorn Rd		CN	\$ 50,000	CN	\$ 545,000 BBWARM	CN		CN		CN		CN		CN			
			PE	\$ 269,000	PE		PE \$	200,000 BBWARI			PE		PE		PE			
	Harborview Road Drainage Improvements Phase 1 (CR-1): Install new		RW		RW		RW \$	30,000 BBWAR	и RW		RW		RW		RW			
10	low-level system along Birch Bay Drive (CR-2, HL-1): Upsize culverts	07-217	52.0 CN		CN		CN \$	200,000 REET			CN		CN		CN		s	1,685,00
10	and install new high level system along Harborview Road to carry	0,-21,	32.0															-,,-
	upland water directly to Birch Bay		l low		CN		CN \$	920,000 BBWAR1	A CN		CN		CN		CN			
			CN		PE	\$ 66,000 BBWARM	PE \$	34,500 BBWARI		\$ 15,000 BBWARM	PE		PE		PE		_	
	Lora Lane Drainage & Tide Gate Modifications (TC1-2): Replace		PE		I'E	5 00,000 BBVVARIVI	FL 3	54,500 BBWARI	VI I L	J 15,000 BBWANN	-		1-				=	
11	existing tide gate structure and repair embankment, install Type 2 CB	18-008	42.5 RW		RW		RW		CN	\$ 200,000 REET	RW		RW		RW		\$	450,50
	and culvert under Birch Bay Drive		l lou		Cu		CN		CN	\$ 135,000 BBWARM	CN		CN		CN			
	Semiahmoo Drive Drainage Improvements - North (BP-2): Upsize		CN PE		CN PE		CN PE \$	50,000 BBWAR		3 133,000 BBWARIVI	PE		PE		PE		+	
12	culverts and re-establish roadside ditch on east side of Semiahmoo	18-009	50.3 RW		RW		RW	50,000 BBWAN	RW		RW		RW		RW		s	200,00
	Drive	10 005	CN		CN		CN		CN		CN S	150,000 BBWARN			CN			ŕ
	Holeman Avenue Storm Drain Improvements (PW-1): Replace CBs,		PE		PE		PE		PE	\$ 85,000 BBWARM	PE		PE		PE			
13	upsize culverts, re-establish ditch on Holeman Ave near Birch Bay	07-242	37.8 RW		RW		RW		RW		RW		RW	\$ 10,000 REET	RW		\$	285,00
	Drive		CN		CN		CN		CN		CN		CN	\$ 190,000 REET	CN			
	Wooldridge Ave/Sunset Dr Drainage Improvements (TC-2): Improve		PE		PE		PE		PE		PE \$	200,000 REET	PE		PE			
14	drainage system to reduce local flooding and incorporate water	13-007	52.2 RW		RW		RW		RW		RW		RW	\$ 20,000 BBWARM		· · · · · · · · · · · · · · · · · · ·	\$	1,220,0
	quality treatment		CN		CN		CN		CN		CN		CN		CN \$	800,000 BBWAR	и	
	Semiahmoo Drive Drainage Improvements - South (BP-5): Upsize		PE		PE		PE		PE		PE		_	\$ 65,000 BBWARM			١,	
15	culverts and re-establish roadside ditch on east side of Semiahmoo	18-010	48.6 RW		RW		RW		RW		RW		RW		RW		\$	65,00
	Drive		CN		CN		CN		CN		CN		CN	A 65 000	CN		-	
	Birch Bay Drive & Pedestrian Facility Project: BBWARM contribution		PE		PE		PE		PE		PE		_	\$ 65,000 BBWARM			1	250.5
16	toward stormwater improvements as part of larger road fund project	07-030			RW		RW		RW		RW		RW		RW		۶	250,0
	in Birch Bay		CN		CN		CN		CN	\$ 250,000 BBWARM	CN		CN		CN			
	LAKE SAMISH STORMWATER	PL TIE		A COLUMN TO SERVICE AND ADDRESS OF THE PARTY			XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	TO 000 0557	-						1		-	
			lac		0.5						DE				IDE			
17	Shallow Shore Drive Drainage Improvements	10 007	44.4 RW		PE RW		PE \$	50,000 REET	PE RW		PE RW		PE RW		PE RW		5	230,00

Item No.	Project Description	Database	BES	Previo	is Expenditures			2019		2020		2021	Transcore I	- 2	022		2023		2024		Total
Tem teo	RIVER & FLOOD	ID No.	Pha	se Amount	Source	Phase	Amount	Source	Phase	Amount	Source Phas	e Amount	Source bh	ase Amo	int Sou	rce Phase	Amount	Source Phase	Amount	Source	Total
	RIVER & PLOOD		RW	\$ 334,00	0 FCZD	RW \$	83,000	FCZD	RW		RW		R'	W	-	RW		RW			Total through 2019:
			RW		FEMA Fed/State grant	RW \$		FEMA Fed/State grant	RW	\$100,000	RW	\$100,000		_	00,000	RW	\$100,000	RW	\$100,000		\$2,046,000
18	Marietta Acquisition Acquire properties in repetitive flood loss area	07-002	79.6 RW		O ESRP grant	RW			RW		RW			W		RW		RW			
			CN		0 FCZD 0 FEMA Fed/State grant	CN \$,		CN CN	\$25,000	CN CN	\$25,000	C		25,000	CN	\$25,000	CN CN	\$25,000		FCZD Total:
			CN		O ESRP grant	CN	119,000	FEMA Fed/State grant	CN		CN			N		CN		CN			\$585,000
19	Truck Road Emergency Erosion Protection Install passive riprap to	18-002	59.4 PE		D FCZD/Roads (50/50)	PE \$	20,000	FCZD/Roads (50/50)	PE		PE		P			PE		PE			Project Total:
. 19	protect road; mitigation needed in 2019	16-002	CN		D FCZD/Roads (50/50)	CN \$		FCZD/Roads (50/50)	CN		CN			N		CN		CN			\$541,000
20	Marine Drive Levee Repair Repair eroded areas of levee crest and	15 004	PE		0 FCZD	PE \$	5,000	FCZD	PE		PE		P	_		PE		PE			Project Total:
20	backslope	15-004	61.4 CN CN		0 WDFW 0 FCZD	CN			CN CN		CN			N N		CN		CN CN			\$286,000
			PE		D FCZD	PE			PE		PE		P			PE		PE			Project Total:
21	High Creek Recommended projects to address ongoing	07-125	57.1 RW		00 FCZD	RW			RW		RW			w		RW		RW			\$1,564,000
	sedimentation		CN		0 FCZD	CN \$	60,000.00		CN		CN		С	N		CN		CN			
			PE	\$ 5,00	0 FCZD	PE \$	5,000		PE		PE		P			PE		PE			Project Total:
22	Hannegan Levee Rehabilitation (USACE) Repair of levee slope and	18-003	60.5 CN			PE \$	27,000 64,000		PE CN		PE		P	_		PE		PE			\$491,000
22	riprap protection along approximately 300 ft of levee	10-003	CN CN			CN \$	362,000		CN		CN			N N		CN		CN CN			FCZD Total:
			CN			CN \$		LE Subzone	CN		CN			N		CN		CN			\$74,000
			CN			PE \$	29,000	USACE	PE		PE		P			PE		PE			Project Total:
23	Sande-Williams (DD#2/USACE) Cost-share to DD#2 for repair of	18-004	39.5 PE			CN \$	70,000		CN		CN			N		CN		CN			\$521,000
	levee slope and riprap protection along approximately 680 ft of levee		CN			CN \$	392,000		CN		CN			N		CN		CN			FCZD Total:
			PE	\$ 25.00	0 FCZD/Roads (50/50)	CN \$	30,000 135,000		CN PE		CN PE		P	N -		CN PE		CN PE			\$70,000
	Abbott Levee Erosion Protection Construct passive riprap erosion				o rezb/noads (50/50/	CN S	430,000		CN		CN			N		CN		CN			Project Total: \$1,160,000
24	protection along approximately 500 ft of levee	18-005	66.5 CN			CN \$	550,000		CN		CN			N		CN		CN			FCZD Total:
			CN			CN \$		LE Subzone	CN		CN			N		CN		CN			\$577,500
25	Rayhorst Levee Improvements Widen levee crest and flatten	16-001	60.5 PE	\$ 5,00	0 FCZD	PE \$	25,000		PE		PE		P			PE		PE			Project Total:
	backslope (SWIF project) Red River Levee Stabilization Restore levee prism and bank		CN	\$ 10.00	0 FCZD	CN \$	35,000	FCZD/DD1	CN PE		CN PE		P	N		CN PE		CN PE			\$90,000
26	protection (SWIF project)	16-004	52.9 CN	3 10,00	U FCZD	CN S		FCZD/DD1	CN		CN	-		N		CN		CN			Project Total: \$245,000
27	Twin View Levee Improvements Widen levee crest and flatten	16 003	FO 2 PE			PE \$			PE \$	25,000	PE		P			PE		PE			Project Total:
27	backslope (SWIF project)	16-002	50.3 CN			CN			CN \$	60,000	CN			N		CN		CN			\$90,000
			PE	\$ 30,00	0	PE \$	80,000	FCZD	PE \$	40,000	PE		P			PE		PE			Project Total:
28	Lynden Levee Improvement Combine drainages and replace two	16-003	64.5 PE			PE			RW	£4 000 000	RW			W		RW		RW			\$1,150,000
	culverts through levee with one larger culvert (SWIF project)		RW			CN			CN	\$1,000,000	CN			N N		CN		CN		-	
	Bertrand Creek Levee Stabilization Restore right and left levee	46.005	PE			PE			PE		PE	\$ 20,000			0,000	PE		PE			Project Total:
29	prisms and install bank protection (SWIF project)	16-005	54.4 CN			CN			CN		CN				0,000	CN		CN			\$190,000
	Upper Hampton Levee Improvements Widen levee crest and		PE			PE			PE		PE		P			PE	\$ 25,000	PE	\$ 100,000		Construction
30	flatten backslope at two sites and address seepage at a third site	16-006	70.4 RW			RW			RW		RW			W		RW		RW	\$ 75,000		Expected
	(SWIF project)		UN DE			CN			CN		CN	ć 3F 000		N E \$ 10	0.000	CN PE	ć 25.000	CN PE			in 2025
31	Abbott Levee Upstream Tie-In Extend and realign upstream end of	16-007	70.4 RW			RW			RW		PE RW	\$ 25,000			00,000 25,000	RW	\$ 25,000	RW			Project Total: \$975,000
	levee (SWIF project)		CN			CN			CN		CN			N J Z	.5,000		\$ 800,000	CN			\$373,000
32	Neevel Levee Bank Stabilization Stabilize oversteepened section of	16-008	49.3 PE CN			PE			PE		PE CN		P	E \$ 2	.0,000		\$ 20,000	PE			Project Total:
	levee (SWIF project)	10 000				CN			CN					N			\$ 150,000	CN			\$190,000
33	Floodplain Acquisition Acquire key properties for future levee reconfiguration to reduce risk and improve habitat	07-002	79.6 RW		0 FCZD	RW \$	300,000	USFW	RW \$	1,000,000		\$ 1,000,000	R	W		RW		RW			
	recomiguration to reduce risk and improve nabitat	-	+	\$ 475,00	0 FCZD	PE S	105,000	FC7D	RW PE \$	50,000	RW PE	\$ 50,000				RW PE		RW PE		-	
	Const. Date of Flow Description Co. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		RW		0 FCZD	RW S			RW \$	500,000	RW	\$ 100,000		W		RW		RW			
34	Jones Creek Debris Flow Protection Construct deflection berm and address local access	07-105	70.6 RW		0 FEMA/State grant	RW			RW	221,222	RW			w		RW		RW			
	address local access				0 FCZD	CN			CN		CN	\$ 250,000	C	N \$ 2,25	50,000	CN		CN			
				\$ 13,00	0 FEMA/State grant	CN			CN		CN	V		N		CN		CN			
	Ferndale Levee Improvement Reconstruct and realign Ferndale and		PE			PE \$	225,000	FCZD	PE \$	200,000	PE	\$ 250,000			50,000	_	\$ 100,000	PE	\$ 50,000		Construction
35	Treatment Plant Levees to improve level of protection and address	07-104	68.9 RW			CN			RW CN		RW CN		R' C	W		RW	\$ 100,000	RW	\$ 2,000,000		Expected in 2024 to 2026
	deficiencies		CN			CN			CN		CN			N		CN		CN	2,000,000		111 2024 to 2020
	Glacier-Gallup Alluvial Fan Restoration - Remove all or part of Glacier		PE		0 FCZD	PE \$	130,000	FCZD	PE \$	75,000	PE	\$ 75,000			5,000		\$ 75,000	PE	\$ 75,000		Construction
36	Creek levee and construct setback levee along Gallup Creek	18-006	88.9 RW			RW			RW		RW			w		RW		RW			Expected
	5.55. Israel and assessment rever storing during of con-		CN			CN			CN		CN			N .		CN		CN			in 2026
	Emergency/New Projects - Typically renais are less that are it for		PE			PE \$	25,000	FCZD	PE \$	25,000	PE	\$ 25,000			5,000		\$ 25,000	PE	\$ 25,000		Total/year:
37	Emergency/New Projects Typically repair projects that result from new damage, as needed	08-003	Varies RW			RW S	350,000	FC7D	RW S	350,000	RW	\$ 350,000		W \$ 35	50,000	RW	\$ 350,000	RW	\$ 350,000		\$425,000
1	new damage, as needed		CN			CN S		Local sponsor	CN \$	50,000	CN	+			50,000		\$ 50,000	CN			
	NOTE: Numbers in italics are placeholders for									20,000		, ,,,,,,				3.1	, 50,000		. 55,550		
	projects still being conceived.																				

Flood Control Zone District 2019 Budget

OVERALL BUDGET SUMMARY

Budget Program	l	Original 2	2018	Budget	ř	Supplemented	d 20	018 Budget	2018 Year En	d P	rojection	Pre	oposed 2019 B	_	
Code		Revenues	E	xpenditures		Revenues		Expenditures	Revenues	E	xpenditures		Revenues	Ex	penditures
169100 Adminstration	\$	3,646,272	\$	615,572	\$	3,646,272	\$	615,572	\$ 5,021,712	\$	615,572	\$	4,980,712	\$	718,216
169100 Transfers - To Stormwater			\$	1,103,449			\$	1,103,449		\$	1,103,449			\$	1,103,449
169102 Flood Response	\$	E	\$	110,000	\$	-	\$	110,000	\$ ш.	\$	110,000	\$	-	\$	110,000
169104 Flood Planning	\$	i e 6	\$	482,160	\$	500,000	\$	1,363,640	\$ 440,000	\$	916,603	\$	350,000	\$	820,000
169106 Technical Assistance	\$	-	\$	86,000	\$	3₩	\$	86,000	\$ -	\$	<mark>76,000</mark>	\$		\$	75,000
169108 NFIP and CRS	\$	15,000	\$	185,000	\$	15,000	\$	185,000	\$ 16,000	\$	140,000	\$	16,000	\$	175,000
169110 Early Warning	\$	4,100	\$	128,500	\$	4,100	\$	204,961	\$ 4,100	\$	1 <mark>77,958</mark>	\$	4,225	\$	131,000
169112 Repair and Maintenance	\$	80,000	\$	682,439	\$	80,000	\$	1,042,257	\$ 80,000	\$	1,039,257	\$	730,600	\$	2,184,439
169114 Flood Hazard Reduction	\$	407,217	\$	2,975,356	\$	407,217	\$	2,907,909	\$ 41,280	\$	1,879,275	\$	633,830	\$	1,672,200
169119 Natural Resources	\$	(717,021)	\$	=	\$	(717,021)	\$		\$ (717,021)	\$	-	\$	582,500	\$	1,436,081
169120 Aquatic Invasive Species	\$	(131,750)	\$	-	\$	(131,750)	\$.=.	\$ (131,750)	\$	9 .5	\$	=	\$	131,750
169121 Water Planning	\$	(220,192)	\$	=	\$	(258,732)	\$	(=)	\$ (208,732)	\$	100,000	\$	47,068	\$	294,686
169700 NPDES	\$		\$	187,580	\$	3€	\$	187,580	\$ =	\$	187,580	\$:= 5	\$	187,580
TOTAL	\$	3,083,625	\$	6,556,056	\$	3,545,085	\$	7,806,368	\$ 4,545,589	\$	6,345,694	\$	7,344,935	\$	9,039,401
ECREASE)/INCREASE IN FUND BALANCE	\$	(3,472,431)	3		\$	(4,261,283)	•		\$ (1,800,105)			\$	(1,694,466)		

Notes:

Assumes fall flood in 2018; 2019 budget includes funding for flood response and new repair

Starting Balance	9,279,228	BOY 2018
Projected Net Annual Activity	-1,800,105	
Projected Balance	7,479,123	BOY 2019
Budgeted Net Annual Activity (with ASR)	-1,694,466	
Add back expense lapse of 20%	1,807,880	
Projected Balance	7,592,537	BOY 2020

Flood Control Zone District 2019 Budget Work Plan and Supporting Documentation

DETAIL FOR FCZD PROGRAM AREAS

FLOOD MAINTENANCE AND OPERATIONS						I.B. C. Was	Dunner de	0040 Dudget	i e e e e e e e e e e e e e e e e e e e
Flood Response (169102)	Original 20			ed 2018 Budget	2018 Year End			2019 Budget	Assumptions/Notes
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	•	Assumptions/Notes
Wage and Benefits		\$ 10,000		\$ 10,000		\$ 10,000			Includes pre-deployed and sand bags for training
Sand and sandbags		\$ 35,000		\$ 35,000		\$ 35,000			Road and M&O employees and equipment
Preparedness training		\$ 5,000		\$ 5,000		\$ 5,000			Road employees wages and benefits for 1 significant flood event
Sector observers during response		\$ 40,000		\$ 40,000		\$ 40,000			
Construction contracts		\$ 20,000		\$ 20,000		\$ 20,000			During and immediately following response
TOTAL		\$ 110,000		\$ 110,000		\$ 110,000			Budget based on 2009 flood with cost & wage increases
NET IMPACT TO FUND BALANCE	\$ (110,000)		\$ (110,000)	\$ (110,000)		\$ (110,000 <u>)</u>)	2018 YE projection assumes fall flood
Flood Planning (169104)	Original 20	18 Budget	Supplemente	ed 2018 Budget	2018 Year End	d Projection	Proposed :	2019 Budget	
	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Assumptions/Notes
Lower Nooksack									
Wage and Benefits		\$ 150,000		\$ 150,000		\$ 150,000		\$ 150,000	
CFHMP refinement/update									Formal process started in late 2016
Facilitation		\$ 50,500		\$ 50,500		\$ 25,000		\$ 15,000	2018 budget for projected contract balance; CA into 2019 plus ne
									budget for amendment if needed
Hydraulic modeling/alternatives analyses		\$ -		\$ 150,000		\$ 40,000		\$ 150,000	Contracted in 2017; CA into 2018; new BA for 2019
Engineering design / Plan development		\$ 150,000	\$ 200,000	\$ 350,000	\$ 190,000	\$ 190,000	\$ 200,000	\$ 200,000	2018 as work is better defined; Revenues are NEP funding
Structure surveys in overflow corridors		\$ 100,000	\$ 50,000	\$ 150,000			\$ 150,000	\$ 150,000	
Geomorphic reach analyses		\$ -		\$ 48,723		\$ 48,723		\$ 50,000	
Sediment management		\$ 6,660		\$ 15,540		\$ 8,880		\$	USGS cost-share; 2017 expenditures include 2016 charges billed late; contract ends in 2018
Habitat assessment		\$ -		\$ 173,877		\$ 144,000		\$ 60,000	Contracted in 2017 and will CA into 2018; revenues from SRFB grant
Flood event manning		\$ -		\$	ľ	\$ 35,000		\$ 20,000	
Flood event mapping Reach 1 Sediment		Φ -	\$ 250,000	₹	\$ 250,000	· ·		Ψ 20,000	NEP-funded USGS Study; contract in 2018 and CA into 2019
		\$ 25,000	250,000	\$ 25,000	230,000	\$ 25,000		\$ 25.000	-
High water mark survey TOTAL	e _	\$ 482,160	\$ 500,000		\$ 440,000		\$ 350,000		2018 Supp. Budget is \$72730 less than JDE due to miscode
NET IMPACT TO FUND BALANCE	7	402,100	\$ (863,640		\$ (476,603)	• .	\$ (470,000		on USGS CA for gaging under 169110
Technical Assistance (169106)	Original 20	118 Budget	Supplements	ed 2018 Budget	2018 Year En	d Projection	Proposed	2019 Budget	
reclinical Assistance (103100)	Revenues	Expenditures	Revenues	Expenditures	Revenues	Expenditures	Revenues		Assumptions/Notes
Wage and Benefits	INCTOTIGGS	\$ 85,000	1.0.0	\$ 85,000		\$ 75,000		\$ 75,000	
Postage for Special District reassessments		\$ 1,000		\$ 1,000		\$ 1,000		\$ -	CDID#5 to be updated in 2018 now that parcel coverage improved
TOTAL	\$	\$ 86,000	\$	\$ 86,000	 \$	\$ 76,000	 \$ -	\$ 75,000	
NET IMPACT TO FUND BALANCE	7		\$ (86,000	•	\$ (76,000)		\$ (75,000)	

Flood Control Zone District 2019 Budget Work Plan and Supporting Documentation

	Revenues	118 Budget Expenditures		Supplemente Sevenues	d 2018 Budget Expenditures		2018 Year End Revenues	Projection Expenditur	es	Proposed 2 Revenues	019 Budget Expenditures	Assumptions/Notes
Wage and Benefits		\$ 160,000			\$ 160,000	o		\$ 130,0			\$ 150,000	
FEMA Floodplain mapping		\$ 10,000			\$ 10,000			\$ -			\$ 10,000	New mapping in 2018 - expenditures for public meeting notice in 2019
Permit reviews \$	15,000		 \$	15,000		1\$	16,000		- 1	\$ 16,000		Flood permit fees
Public education/CRS activities	,	\$ 15,000	'	ŕ	\$ 15,000		,	\$ 10,0	00 l	10,000	\$ 15,000	· ·
TOTAL \$ NET IMPACT TO FUND BALANCE \$			\$	15,000 (170,000)					00	\$ 16,000 \$ (159,000)	\$ 175,000	
Early Warning System (169110)	Original 20 Revenues	118 Budget Expenditures		Supplemente evenues	d 2018 Budget Expenditures		2018 Year End Revenues	Projection Expenditur	20	Proposed 2 Revenues	019 Budget Expenditures	Assumptions/Notes
Wage and Benefits	110101100	\$ 5,000	'``	CVCHUCS	\$ 5,000		revendes	\$ 5,0	- 4	Revenues	\$ 5,000	
Nooksack River gages - USGS		\$ 90,000			\$ 162,731			\$ 166,7			\$ 96,500	2018 exp includes CA from 2017 plus 2018 contract; 2017 CA of
Everson MainSt stage gage _ USGS \$	4,100	·	 	4,100		` \$	4.400	Ψ 100,1		ф 400r	\$ 90,500	\$72,731 miscoded to 169104 in JDE; 3% cost increase per yr
	4,100		l a	4,100			4,100			\$ 4,225		Canadians reimburse cost to maintain gage; AVZ pays for Jones gage directly
SNOTEL sites - USDA		\$ 6,000			\$ 6,000			\$ -	_		\$	2017 was last year of 5-year contract; Feds to pay in future
WWU camera on Swift Creek slide		\$ 2,500			\$ 6,230			\$ 6,2	27		\$ 2,500	2017 contract for 5-year duration at \$2500/yr; CA's of \$3730
Emergency access to SNOTEL		\$ 5,000	1		\$ 5,000						\$ 5,000	
Equipment for gage upgrades/repairs		\$ 10,000			\$ 10,000						\$ 12,000	Equip at NF gage may need replacing
Repairs and maintenance	4 400	\$ 10,000		4.400	\$ 10,000				[\$ 10,000	
TOTAL \$	•	\$ 128,500	\$	4,100	\$ 204,961	1 \$		\$ 177,9	58		\$ 131,000	
NET IMPACT TO FUND BALANCE \$	(124,400)		\$	(200,861)		\$	(173,858)			\$ (126,775)		
FLOOD CONSTRUCTION AND IMPROVEMENTS												
Repair and Maintenance (169112)	Original 20	-	S	upplemente	d 2018 Budget		2018 Year End	_		Proposed 2	•	
	Revenues	Expenditures	R	evenues	Expenditures		Revenues	Expenditur		Revenues		Assumptions/Notes
Wage and Benefits		\$ 75,000			\$ 75,000)		\$ 100,0	00		\$ 110,000	
Construction Projects												
Emergency/new projects as needed \$	50,000		\$	50,000			50,000	·		\$ 50,000		Assumed costs for responding to flood/new repairs (fall 2018 flood assumed); increased due to cost of recent emergencies
Miscellaneous repair projects		\$ 50,000			\$ 50,000			\$ 50,0		_	\$ 50,000	Placeholder for small projects; fall 2018 flood assumed
Marine Drive Levee Repair \$	30,000	\$ 175,000	\$	30,000	\$ 275,000) \$	30,000				\$ 5,000	
Truck Road Emergency Bank Protection		\$	\$	=	\$ 250,000	}		\$ 250,0	00		\$ 25,000	50/50 cost-share with Roads; budget from emergency allocation - replenished by supplement; \$50,000 for 2019 assumed mitigation
Red River Levee Stabilization (SWIF)		\$ 10,000	ļ		\$ 10,000			\$ 10,0	00	\$ 63,000	\$ 200,000	Survey and permit fees in 2018; in-house design; construction in 2019; assumes 30% cost-share from DD#1 or others
Hannegan Levee Rehabilitation (USACE)										\$ 2 <mark>7</mark> ,600	\$ 92,000	PIR local sponsor share is \$90,620 plus title reports; revenues from LE Subzone
Abbott Levee Erosion Protection										\$ 570,000	\$ 1,100,000	Assumes Roads pays 50% and LE pays \$20,000 (2%) due to
Sande-Williams Levee Rehabilitation Mitigation Planning/Implementation										\$ 20,000	\$ 100,000	declining fund balance USACE cost-share split 80/20 between FCZD and DD#2
Jail crew		\$ 117,439			\$ 117,439	9		\$ 117,4	39		\$ 117,439	Jail crew labor for FCZD and SWIF projects; available to diking or
Reveg planning/coordination		\$			\$ 9,818			¢ ^^	۱۵۱		¢ 05.000	subzones
Reveg/misc supplies		\$ 5,000			\$ 5,000			\$ 9,8 \$ 2,0				Increased to cover plant replacement costs for Deming and other
Neveg/misc supplies			I .			. .						past projects as needed
	90,000	¢ 692.420	1 &	90 000	₾ 4 0.40 0E7					A 700 000	A 0 404 400	
TOTAL \$ NET IMPACT TO FUND BALANCE \$	•		\$	80,000 (962,257)		\$ \$		\$ 1,039,2		\$ 730,600 \$ (1,453,839)	\$ 2,184,439	2018 supp budget inc \$100,000 from High Crk

Flood Control Zone District 2019 Budget Work Plan and Supporting Documentation

Flood Hazard Reduction (169114)		Original 2 Revenues	Budget Expenditures		Supplemented Revenues	d 2018 Budget Expenditures		2018 Year End Revenues	penditures] ,	Proposed 2 Revenues		Assumptions/Notes
Wage and Benefits			\$ 220,000			\$ 220,00	0		\$ 175,000			\$ 190,000	
Swift Creek	1 2						4						
Bank stabilzation/channel excavation	\$	22,500	\$ 75,000	\$	22,500	\$ 75,00	0	\$ 37,500	\$ 125,000			\$ 105,000	SNE cost-share; 2018 YE assumes Roads pays 50% of \$250k project; 2019 is transfer to new Swift Creek fund
Lower Nooksack River													
Deming levee improvement constr. (708004)			\$ 40,000	\$	-	\$ 43,31	4		\$ 25,000	l		\$ 0960	Planting in 2018; CA for plants \$3314; 2019 maint under 112
Marietta property acquisition & demo (FEMA FMAG-716002)	\$	380,937	\$ 435,356	\$	380,937	\$ 435,35	6		\$ 20,000	\$	330,050	\$ 377,200	Boyd and Allen in 2017; Turk appraisals and title work in 2018 with acquisition in 2019; revenues are FEMA grant
Marietta property acquisition & demo New properties			\$ 50,000			\$ 50,00	0		\$ 25,000			\$ 50,000	Allocation for new properties that become available and non-grant expenses; increased allocation as mitigation for Marine Drive Levee
Leases for agriculture	l _s	3,780		 \$	3,780		-	\$ 3,780		\$	3,780		River Rd and Emmerson Rd properties
Floodplain acquisition		,	\$ 5,000		ŕ	\$ 5,00	0	er er		\$	300,000	\$ 300,000	Budget was from plant materials CA; option agreement would need to be extended for next round of Floodplains by Design funding; 2019 is for Reach 1 property with USFS funding thru WDFW
Ferndale Levee Improvement Project Phase 1			\$ 200,000			\$ 200,00	0		\$ 발			\$ 200,000	Survey, hydraulic analysis, alteratives analysis, conceptual design in 2018/19; supplement if FbD grant awarded in 2019
Lynden Levee Improvement Project (in conjunction with USACE rehab project)			\$ 125,000			\$ 125,00	0		\$ 35,000			\$ 40,000	USACE rehab in 2020 to include culvert replacement; survey, hydraulics, wetland/permitting for channel relocation by FCZD
Rayhorst Levee Improvements			\$ 60,000			\$ 60,00	0		\$ 3			\$ 60,000	Design, permit and construct project to widen and backslope levee
Jones Creek Deflection Berm (712004)													
Survey			\$ 25,000			\$ 25,00	o		\$ 25,000				Survey and base mapping for design
Berm and bridge design			\$ 200,000			\$ 200,00	0		\$ 125,000	ı		\$	Contract in 2018 and CA into 2019
Land/easement acquisition			\$ 100,000			\$ 105,00	۱ ٥		\$ 35,000			\$ 125,000	Purchase of parcels/easements for berm/road construction; 2018 inc. CA for appraisal; 2019 exp for appraisals/relocation asst
Construction			\$ -			\$							Construction budget to be established once design is further along
High Creek Sediment Management				-						10			
Sediment trap/channel improvement design			\$ 12			\$ 22,23	9		\$ 60,655				WSE design / construction support, 2018 CA and amendment
Sediment trap/channel imp. construction			\$ 1,300,000			\$ 1,132,00	0		\$ 900,000				\$100,000 reallocated to Marine Drive (169112); \$70,000 reallocated for land; \$2k CA for appraisal
Easements						\$ 70,00	0		\$ 88,620				Construction funding reallocated for easements; used some of Jones land budget too
Sediment trap maintenance												\$ 50,000	Includes funds for WSE to evaluate performance
Glacier-Gallup Creek Alluvial Fan Restoration	1												
Feasibility study/concept design Preliminary design									\$ 100,000			\$ 100,000	Supplement 2019 budget if FbD grant awarded
City of Lynden - Pepin Creek													
Funding for downstream analysis			\$ 140,000			\$ 140,00	0		\$ 140,000			\$ 3 = 1	ILA executed in 2016 and CA'd into 2017 for reimbursement of City's expenses; new 2018 budget for balance, may CA into 2019
TOTAL NET IMPACT TO FUND BALANCE	1 7	407,217 (2,568,140)	2,975,356	\$ \$	407,217 (2,500,693)	\$ 2,907,90	- 1	\$ 41,280 \$ (1,837,995)	\$ 1,879,275	\$ \$	-	\$ 1,672,200	

Flood Control Zone District 2019 Natural Resources Budget Work Plan and Supporting Documentation

Natural Resources (169119)		Original 2		Budget openditures		upplemented Revenues		18 Budget penditures		Year End 20 Revenues		Projection xpenditures	,	Proposed 2 Revenues			Assumptions/Notes
NATURAL RESOURCES ADMINISTRATION	l i`	CVCIIdCS		(perialtaree		tovonace	-/-		Ė								
Staff	\$	7,050	\$	328,532	\$	7,050	\$	328,532	\$	7,050	\$	328,532			\$	306,306	Includes salary for 2.5 FTEs and overtime.
Office and operating	*	,,000	\$	224,900			\$	224,900	•	.,	\$	224,900			\$	-	
TOTAL	s	7,050	•	553,432	 \$		\$	553,432	\$	7,050	\$	553,432	\$	=	\$	306,306	
NET IMPACT TO FUND BALANCE		(546,382)		. ,	\$	(546,382)			\$	(546,382)			\$	(306,306)			
NATURAL RESOURCES OPERATIONS																	
Salmon Recovery																	
Staff Staff			\$	126,701			\$	126,701	1		\$	126,701			\$	127,035	
	I				l				1								Includes \$51,000 for WCC crew, plant survival surveys, spraying
Restoration effectiveness monitoring, adaptive	1				l				1		_				•	=1.000	noxious weeds, and plant materials for replacement of failing plants
management, and stewardship	ľ		\$	51,000	l		\$	51,000	l		\$	51,000			\$		at restoration projects
Maintaining existing restoration projects*	1		\$	25,000	l		\$	25,000	l		\$	25,000			\$	32,250	WCC crew contract for maintaining previously planted projects
					l				l						•	00.000	Contracted services for activities supporting planting, fencing,
New restoration projects*					l				l						\$	30,000	culvert replacement, etc.
Marine Resources Committee	١.				١.		_		١,	04.040	•	04.044	_	00.004	Φ	00 000	0.7 FTF
Staff	\$	64,040		64,041		64,040		64,041	\$	64,040		64,041		66,294		66,393	0.7 FTE MRC grant funding minus labor
MRC restoration projects	\$	8,960	\$	8,960	\$	8,960	\$	8,960	\$	8,960	Ъ	8,960	\$	8,706	Ф	X C	I grant runding minus labor
Water Quality/Pollution Identification & Corre	ction	1	_		l		•	400 704			•	400 704			ው	407.03E	Program Coordinator (1 FTE)
Program Coordination	1		\$	126,701	l		\$	126,701	l		Ъ	126,701			\$	127,035	Sampling personnel, lab contract, vehicles, equipment (1.25 FTE +
	1		•	200 455	l		•	000 455	1		Φ.	222.455			ф	150 260	extra help)
Water Quality Monitoring		70.000	\$	233,455	_	70.000	\$	233,455	_	70.000	\$	233,455	•	100,800	Φ Φ		WCD Data Manager
Data Management	\$	76,683		76,683		76,683		76,683	\$	76,683		76,683	\$	206,400			WCD Farm Planners
Technical Assistance	\$	116,917		155,000		190,971		199,054	\$			199,054 95,800	\$	206,400 94,497		,	Outreach staff, WCD staff, supplies
Community Outreach	\$	83,300	\$	95,800	🌣	83,300	\$	95,800	\$	83,300	\$ \$	95,800 52,000	\$ \$	22,000			OSS and small farm cost share
Incentives	_	00.000	\$	22,000	_	00.000	Ф	52,000 80,600	_	80,600	-	80,600		83,803			PDS Staff
Compliance	\$	80,600	\$	80,600	Þ	80,600	\$	80,600	\$	60,600	Φ	80,000	🎙	65,605	φ	03,924	l Do Stall
Coordination and Planning	1												l				Staff time only (0.5 FTE); contracted services under Stormwater
Lake Whatcom Homeowner Incentive	1		φ	EC 500			ф	EG E90	1		Ф	56,580	l		æ	56,731	[
Program	1		Φ	56,580 25,000			Φ \$	56,580 25,000	l		Ф \$	25,000	l		Ψ	30,731	l
WSU Extension outreach services	l		Ф	25,000			Φ	23,000	1		Ψ	25,000			Ψ		
TOTAL	e	430,500	\$	1,147,521	¢	504,554	\$	1,221,575	\$	504,554	\$	1,221,575	 	582,500	\$	1,129,776	
NET IMPACT TO FUND BALANCE		(717,021)		1, 177,521	\$	(717,021)	Ψ	1,221,010	\$	(717,021)		.,,	 \$	(547,276)	*	.,,	
TOTAL FOR COST CENTER		437,550		1,700,953		•	\$	1,775,007	1	511,604	\$	1,775,007	\$, , ,	\$	1,436,081	
TOTAL FOR COST CENTER	` *	401,000	\$	1,263,403	*	011,004	\$	1,263,403	•	0.1,004	\$	1,263,403	•	,	\$	853,581	
*Integrated Salmon Recovery/Flood Hazard Re	educt	ion capital a	~		ects	appear undei	-		9114	4 and 169104	4.	,,	l		·		

Flood Control Zone District 2019 Natural Resources Budget Work Plan and Supporting Documentation

Acquatic Invasive Species (169120)	R	Original 2 evenues		Budget cpenditures		upplemented Revenues		8 Budget enditures		ipplemente evenues		8 Budget enditures	ŀ	Proposed 2 Revenues			Assumptions/Notes
AIS ADMINISTRATION Staff	\$		\$	-	\$		\$		\$	_	\$		\$		\$		
Office and operating	Ť		\$	2	`		\$				\$	Ē			\$	<u>;•</u>	Misc. Expenses
TOTAL NET IMPACT TO FUND BALANCE	'	3	\$	-	\$		\$	•	\$ \$	∰) #3	\$		\$		\$.=	
AIS OPERATIONS																	
Coordination and Planning																	
Education and Inspection																	Contribution to City for AIS Program; includes COB program cost
Interlocal Agreement (COB)	\$		\$	123,000	\$	· ·	\$	123,000	\$	-	\$	123,000	8	-	\$	123.000	increase
AIS online education program website	Ţ			·				,			*	,	ľ		•	1=0,000	
maintenance	\$	(#):	\$		\$	·	\$	8,750	\$		\$	-,	\$	3 =	\$		Contracted services for online course/website support
TOTAL NET IMPACT TO FUND BALANCE		(131,750)	\$	131,750			\$	131,750	\$ \$		\$	131,750		(424.750)	\$	131,750	+1
TOTAL FOR COST CENTER		(131,750)	· .s.	131,750	\$	(131,750)	\$	131,750	\$ \$	(131,750)	\$	131,750	\$	(131,750)	\$	131,750	
TOTAL TORK GOOT GERTLER	•		\$	131,750	*		\$	131,750	*		\$	131,750		100	\$	131,750	
									l				ı				
W (DI ((400404)		0 :		-	١.				١ _				ı				
Water Planning (169121)	P	Original 2		_		upplemented				ipplemente			١.	Proposed 2		_	Acquimations/Notes
	R	Original 2 evenues		Budget cpenditures		upplemented Revenues		8 Budget enditures		ipplemented evenues		8 Budget enditures	F	Proposed 2 Revenues		_	Assumptions/Notes
Water Planning (169121) WATER PLANNING ADMINISTRATION Staff	R \$	•	Ex	penditures	R		Exp				Ехр	enditures		Revenues		cpenditures	
WATER PLANNING ADMINISTRATION Staff Office and operating	\$	evenues 46,843	\$ \$	93,686 550	R	Revenues 46,843	\$ \$	93,686 550	\$ \$	46,843	\$ \$	93,686 550	\$	Revenues 47,068	Ex	94,136 550	Assumptions/Notes Hydrogeologist
WATER PLANNING ADMINISTRATION Staff Office and operating TOTAL	\$ \$	46,843 46,843	\$ \$ \$	spenditures 93,686	\$ \$	46,843 46,843	\$ \$	enditures 93,686	\$ \$	46,843 46,843	\$ \$	93,686 550	\$ \$	47,068 47,068	E x	spenditures 94,136	
WATER PLANNING ADMINISTRATION Staff Office and operating	\$ \$	evenues 46,843	\$ \$ \$	93,686 550	\$ \$	Revenues 46,843	\$ \$	93,686 550	\$ \$	46,843	\$ \$	93,686 550	\$	Revenues 47,068	\$ \$	94,136 550	
WATER PLANNING ADMINISTRATION Staff Office and operating TOTAL	\$ \$	46,843 46,843	\$ \$ \$	93,686 550	\$ \$	46,843 46,843	\$ \$	93,686 550	\$ \$	46,843 46,843	\$ \$	93,686 550	\$ \$	47,068 47,068	\$ \$	94,136 550	
WATER PLANNING ADMINISTRATION Staff Office and operating TOTAL NET IMPACT TO FUND BALANCE WATER PLANNING OPERATIONS	\$ \$	46,843 46,843	\$ \$ \$	93,686 550	\$ \$	46,843 46,843	\$ \$	93,686 550	\$ \$	46,843 46,843	\$ \$	93,686 550	\$ \$	47,068 47,068	\$ \$	94,136 550	
WATER PLANNING ADMINISTRATION Staff Office and operating TOTAL NET IMPACT TO FUND BALANCE WATER PLANNING OPERATIONS Coordination and Planning	\$ \$ \$	46,843 46,843	\$ \$ \$	93,686 550	\$ \$ \$	46,843 46,843 (47,393)	\$ \$ \$ \$	93,686 550 94,236	\$ \$ \$	46,843 46,843 (47,393)	\$ \$ \$	93,686 550 94,236	\$ \$ \$	47,068 47,068	\$ \$ \$	94,136 550 94,686	Hydrogeologist
WATER PLANNING ADMINISTRATION Staff Office and operating TOTAL NET IMPACT TO FUND BALANCE WATER PLANNING OPERATIONS Coordination and Planning Hirst Response/Watershed Planning	\$ \$ \$\$	46,843 46,843 (47,393)	\$ \$ \$	93,686 550 94,236	\$ \$ \$	46,843 46,843 (47,393)	\$ \$ \$ \$ \$	93,686 550 94,236 38,540	\$ \$ \$ \$	46,843 46,843 (47,393)	\$ \$ \$	93,686 550 94,236 38,540	\$ \$\$	47,068 47,068	\$ \$	94,136 550 94,686	Hydrogeologist Consultants
WATER PLANNING ADMINISTRATION Staff Office and operating TOTAL NET IMPACT TO FUND BALANCE WATER PLANNING OPERATIONS Coordination and Planning	\$ \$ \$	46,843 46,843 (47,393)	\$ \$ \$ \$	93,686 550 94,236	\$ \$ \$ \$	46,843 46,843 (47,393)	\$ \$ \$ \$ \$ \$	93,686 550 94,236 38,540 270,192	\$ \$ \$ \$ \$ \$	46,843 46,843 (47,393)	\$ \$ \$ \$ \$	93,686 550 94,236 38,540 270,192	\$ \$\$ \$	47,068 47,068	\$ \$ \$ \$ \$	94,136 550 94,686 200,000	Hydrogeologist Consultants \$336,526 Professional services contract
WATER PLANNING ADMINISTRATION Staff Office and operating TOTAL NET IMPACT TO FUND BALANCE WATER PLANNING OPERATIONS Coordination and Planning Hirst Response/Watershed Planning LENS Groundwater Model	\$ \$\$	46,843 46,843 (47,393)	\$ \$ \$ \$ \$ \$	93,686 550 94,236	\$ \$ \$\$\$	46,843 46,843 (47,393)	\$ \$ \$ \$ \$ \$ \$ \$	93,686 550 94,236 38,540	\$ \$ \$ \$	46,843 46,843 (47,393)	\$ \$ \$ \$ \$ \$	93,686 550 94,236 38,540	\$ \$\$ \$	47,068 47,068 (47,618)	\$ \$ \$	94,136 550 94,686 200,000	Hydrogeologist Consultants
WATER PLANNING ADMINISTRATION Staff Office and operating TOTAL NET IMPACT TO FUND BALANCE WATER PLANNING OPERATIONS Coordination and Planning Hirst Response/Watershed Planning LENS Groundwater Model LIO administration Stream Gauging TOTAL	\$ \$\$\$\$ \$\$\$\$	46,843 46,843 (47,393) 50,000 67,950 100,000 217,950	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	93,686 550 94,236 - 270,192 67,950	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	46,843 46,843 (47,393) 50,000 67,950 100,000 217,950	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	93,686 550 94,236 38,540 270,192 67,950	\$ \$\$ \$ \$\$\$	46,843 46,843 (47,393) 100,000 67,950 100,000 267,950	\$ \$ \$ \$ \$ \$ \$	93,686 550 94,236 38,540 270,192 67,950	\$ \$\$	47,068 47,068 (47,618)	\$ \$ \$ \$ \$	94,136 550 94,686 200,000	Hydrogeologist Consultants \$336,526 Professional services contract Administration of LIO process
WATER PLANNING ADMINISTRATION Staff Office and operating TOTAL NET IMPACT TO FUND BALANCE WATER PLANNING OPERATIONS Coordination and Planning Hirst Response/Watershed Planning LENS Groundwater Model LIO administration Stream Gauging TOTAL NET IMPACT TO FUND BALANCE	6 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	46,843 46,843 (47,393) 50,000 67,950 100,000 217,950 (220,192)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	93,686 550 94,236 270,192 67,950 100,000 438,142	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	46,843 46,843 (47,393) 50,000 67,950 100,000 217,950 (258,732)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	93,686 550 94,236 38,540 270,192 67,950 100,000 476,682	R	46,843 46,843 (47,393) 100,000 67,950 100,000 267,950 (208,732)	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	93,686 550 94,236 38,540 270,192 67,950 100,000 476,682	\$ \$\$ \$	47,068 47,068 (47,618)	\$ \$ \$ \$ \$ \$ \$ \$ \$	94,136 550 94,686 200,000	Hydrogeologist Consultants \$336,526 Professional services contract Administration of LIO process
WATER PLANNING ADMINISTRATION Staff Office and operating TOTAL NET IMPACT TO FUND BALANCE WATER PLANNING OPERATIONS Coordination and Planning Hirst Response/Watershed Planning LENS Groundwater Model LIO administration Stream Gauging TOTAL	6 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	46,843 46,843 (47,393) 50,000 67,950 100,000 217,950	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	93,686 550 94,236 - 270,192 67,950 100,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	46,843 46,843 (47,393) 50,000 67,950 100,000 217,950	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	93,686 550 94,236 38,540 270,192 67,950 100,000	R	46,843 46,843 (47,393) 100,000 67,950 100,000 267,950	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	93,686 550 94,236 38,540 270,192 67,950 100,000	\$ \$\$ \$	47,068 47,068 (47,618)	\$ \$ \$ \$ \$ \$ \$ \$	94,136 550 94,686 200,000	Hydrogeologist Consultants \$336,526 Professional services contract Administration of LIO process