

Appendix H:

Wastewater Services Ten Year Capital Plan



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	2013	2014	2015	2016	2017	Total	2018	2019	2020	2021	2022	TOTAL
SOUTHERN COMMUNITY WASTEWATER												
Other Equipment						0						0
1 of 12" check valve and 1 of 12" gate valve for DBPS- defer from 2013 to 2014		7,500				7,500						7,500
Mechanical seal for CRPS	3,000					3,000						3,000
Basement truck bay roll-up door replacement	20,000					20,000						20,000
Arena Syphon Chamber remove existing enclosure and replace with low	10,000					10,000						10,000
Purchase 2 C-cans for storage	9,000					9,000						9,000
Chemical feed pumps for CEPT polymer	6,000					6,000						6,000
Sutorbilt gas blower	12,000					12,000						12,000
Borger Grinder (wet end)	10,000					10,000						10,000
Spare Actuator unit for CRPS influent gate system	7,000					7,000						7,000
Replace screen plates on FSM screen #1	15,000					15,000						15,000
Chemical feed pumps for CEPT poly			6,000		6,000	12,000		6,000		6,000	6,000	30,000
Mechanical seal for CRPS	5,000					5,000						5,000
Impeller for DBPS	10,500					10,500						10,500
Skimmer Drive Unit			10,000			10,000						10,000
Hi pressure gas storage tank replacement/relocation		100,000				100,000						100,000
WPS water actuated valve replacement				5,000		5,000	5,000		5,000			15,000
CRPS influent gate replacement	45,000					45,000						45,000
Grit pump replacement			7,500			7,500						7,500
Biomedica filter replacement		15,000				15,000		15,000				30,000
Gas blower replacement			30,000		30,000	60,000						60,000
Gas blower high/low pressure valves		3,000		3,000	10,000	16,000						16,000
Moyno sludge heat circulation pump			40,000	40,000		80,000						80,000
General allowance	0	57,000	156,500	252,000	269,000	734,500	271,500	226,500	276,500	194,000	194,000	1,897,000
	152,500	182,500	250,000	300,000	315,000	1,200,000	276,500	268,000	334,000	285,500	285,500	2,649,500
Engineering Structures												
Chase River Pump Station:												0
Influent Sampler			75,000			75,000			75,000	75,000	75,000	300,000
Nanaimo Treatment Plant												0
Main bldg HVAC replacement		100,000				100,000						100,000
Enclosure and roof for Gas Conditioning Skid(defer 2013 to 2014)	6,000	19,000				25,000						25,000
Bypass line at CRPS from existing overflow to wetwell	79,000					79,000						79,000
Flygt pump to replace #4 at CRPS	0	45,000				45,000						45,000
Weigh scale(initial estimate \$50,000 added another 10K)	60,000					60,000						60,000
	145,000	164,000	75,000	0	0	384,000	0	0	75,000	75,000	75,000	609,000
Vehicles												0
T-23 3/4 ton truck			36,000			36,000			36,000			72,000
T-22 replace (Dump Truck)			54,000			54,000				54,000	54,000	162,000
T-28 Van				25,000		25,000						25,000
4wd Truck (t-21 replacement)	27,000					27,000						27,000
	27,000	0	90,000	25,000	0	142,000	0	0	36,000	92,000	92,000	362,000
Computers												0
Plant computers		12,500	5,000	7,500	5,500	30,500	2,500	12,500	5,000	7,500	7,500	65,500
Shared allocations	8,625	710	1,680	355	1,275	12,645	9,210	710	1,680	355	355	24,955
Installation of UPS units for SCADA at DBPS, WPS, CRPS, GNPCC	30,000					30,000						30,000
UPS for phone system at GNPCC	5,000					5,000						5,000
	43,625	13,210	6,680	7,855	6,775	78,145	11,710	13,210	6,680	7,855	7,855	125,455
Reserve fund contributions						0						0
Operating budget	1,429,985	1,049,985	1,199,985	1,695,835	1,220,835	6,596,625	190,835	300,835	350,835	550,835	500,835	8,490,800
Repayment from Ravensong	695,850	695,850	695,850			2,087,550						2,087,550
	2,125,835	1,745,835	1,895,835	1,695,835	1,220,835	8,684,175	190,835	300,835	350,835	550,835	500,835	10,578,350
General Reserve Fund Use												0
DBPS Pump, Motor and VFD	572,000					572,000						572,000
Secondary Treatment Upgrade - DCC unfunded	0			3,999,642	0	3,999,642						3,999,642
Secondary Treatment Upgrade - existing users	0			8,500,000	10,000,000	18,500,000	10,500,000					29,000,000
Secondary treatment plant expansion prelim design (50% DCC)	0	300,000				300,000						300,000
Secondary treatment detailed design (50% DCC)	0		1,500,000			1,500,000						1,500,000
Main bldg HVAC replacement	175,000					175,000						175,000
Outfall Stage 1 (land section) (50% non DCC)	1,650,000					1,650,000				4,500,000	4,500,000	1,650,000
Outfall Stage 2 (marine section) (50% non DCC)	43,500					43,500						43,500

	2013	2014	2015	2016	2017	Total	2018	2019	2020	2021	2022	TOTAL
amt to borrow for existing users	2,440,500	300,000	1,500,000	12,499,642	10,000,000	26,740,142	10,500,000	0	0	4,500,000	4,500,000	46,240,142
Net from reserves				0	(2,085,367)		(10,309,165)			(3,297,495)	(3,999,165)	
Borrowed Funds				12,499,642	7,914,633		190,835			1,202,505	500,835	
Borrow unfunded balances - DCC unfunded	0	0	0	0	7,945,000	7,945,000	8,445,000			2,143,192	3,745,000	22,278,192
Borrow unfunded balances - existing users	0	0	0	0	2,085,367	2,085,367	10,309,165			3,297,495	3,999,165	19,691,192
	0	0	0	0	10,030,367	10,030,367	18,754,165	0	0	5,440,687	7,744,165	41,969,384
Development Cost Charges Applied												
Third digester - Construction	1,050,000					1,050,000						1,050,000
Secondary treatment plant expansion prelim design (50% DCC)	0	300,000				300,000						300,000
Secondary treatment detailed design (50% DCC funded)	0		1,500,000			1,500,000						1,500,000
Sedimentation tank expansion carryforward	2,440,540					2,440,540						2,440,540
Outfall Stage 1(land section) (50% DCC)	1,650,000					1,650,000						1,650,000
Secondary Treatment Upgrade (50% DCC)		0		8,500,000	10,000,000	18,500,000	10,500,000					29,000,000
Outfall - Stage 2(marine)- (50% DCC)	43,500					43,500				4,500,000	4,500,000	9,043,500
Borrowed Funds/from other reserves	5,184,040	300,000	1,500,000	8,500,000	10,000,000	25,484,040	10,500,000	0	0	4,500,000	4,500,000	44,984,040
Net from DCC's	0	0	2,884,960	(3,999,642)	(7,945,000)	(9,059,682)	(10,309,165)	0	0	(2,143,192)	(3,745,000)	89,968,080
	5,184,040	300,000	4,384,960	4,500,358	2,055,000	16,424,358	190,835	0	0	2,356,808	755,000	134,952,120
SOUTHERN COMMUNITY WASTEWATER CAPITAL SUMMARY												
Total Capital	7,992,665	959,710	6,306,640	17,332,855	20,321,775	52,913,645	19,424,045	281,210	451,680	9,460,355	9,460,355	91,991,290
RESERVE FUNDS USE						0						0
BORROWED FUNDS	7,624,540	600,000	5,884,960	17,000,000	9,969,633	41,079,133	0	0	0	3,559,313	1,255,835	45,894,281
BYLAW FUNDS ON HAND	0	0	0	0	10,030,367	10,030,367	18,754,165	0	0	5,440,687	7,744,165	41,969,384
GRANTS/OTHER						0						0
Net Capital from Operations	368,125	359,710	421,680	332,855	321,775	1,804,145	669,880	281,210	451,680	460,355	460,355	4,127,625

NORTHERN COMMUNITY WASTEWATER

Other Equipment

	2013	2014	2015	2016	2017	Total	2018	2019	2020	2021	2022	TOTAL
Two new gas meters	2,400					2,400						0
DR3900 Spectrophotometer for the lab	4,393					4,393						2,400
Electric hoist	3,500					3,500						4,393
Construction of covered area for vehicle parking	5,000					5,000						3,500
Effluent feed pumps (2) replacement	8,000					8,000						5,000
Two waste pumps, upgrade to mechanical seals	16,000					16,000						8,000
Flow meter for the headworks influent line	10,000					10,000						16,000
Boeger grinder pumps (2)	40,000					40,000						10,000
Grit pump	10,000					10,000						40,000
Spare 20 hp pump for Hall Rd	27,000					27,000						10,000
Solids Contract tank slide gates (2)	10,000					10,000						27,000
TF corner sump pump replacement (2)	16,500					16,500						10,000
ATAD mixer	28,000					28,000						16,500
Carry over spare pump for Bay Ave	45,000					45,000						28,000
Three gate valves for feed pipes to Secondary tanks	15,000					15,000						45,000
Chain and sprockets	10,000					10,000						15,000
Install purchased eyewash station for C12 loading site	5,000					5,000						10,000
2 lobe pump sludge to centrifuge			20,000			20,000						5,000
Replace biofilter media					15,000	15,000						20,000
TF Influent pump	0		30,000		30,000	60,000				30,000	30,000	15,000
Skimming screen	0		45,000			45,000						120,000
TF effluent pumps		30,000		30,000		60,000			30,000			45,000
Kinkade new pump	0			5,000		5,000				5,000	5,000	90,000
Lee Rd pump replacement				30,000		30,000	30,000					15,000
Breakwater pump replacement		8,000				8,000			30,000			90,000
Columbia Beach pump replacements		10,000				10,000			8,000			16,000
Barclay Cres pump replacements			15,000			15,000	15,000		10,000			20,000
Hall Rd pump replacement				25,000		25,000				25,000		30,000
Secondary collector drives				65,000		65,000			65,000		25,000	75,000
Effluent turbines			175,000		175,000	350,000						130,000
Effluent feed pumps		5,000				5,000		5,000				350,000
Macerators replacement				40,000		40,000				70,000	70,000	10,000
PLC control panel replacement				8,000	35,000	43,000						180,000
Bay Ave main breaker & MCC replacement				25,000		25,000						43,000
Repairs to beach manholes				65,000		65,000						25,000
Allowance	0	217,000	18,000	2,000		237,000	10,000		65,000	70,000	70,000	130,000
Aeration upgrade at FCPCC	40,000					40,000	0		57,000	0	0	444,000
	295,793	270,000	303,000	295,000	255,000	1,418,793	235,000	245,000	265,000	220,000	200,000	2,583,793
Engineering structures												
Shower/Washroom Building; revised cost from \$693,000 to \$500,000 refer from 2013 t		500,000				500,000						500,000
Duct work in the primary tank area - discharge slide	35,000					35,000						35,000
Trickling filter roof repairs(carry forward)	0	290,000				290,000						290,000
Septage metering station completion			250,000			250,000						250,000
New grit hopper with air operated slide gate	25,000					25,000						25,000
	60,000	790,000	250,000	0	0	275,000	0	0	0	0	0	275,000
Vehicles												
Unit T-15					36,000	36,000						36,000
Unit T-16		31,500				31,500						31,500
Unit T-11		27,500				27,500						27,500
T27				30,000		30,000						30,000
E11 - forklift					25,000	25,000						25,000
E12 - Bobcat					30,000	30,000						30,000
	0	59,000	0	30,000	91,000	180,000	0	0	36,000	35,000	35,000	286,000
Computers												
Plant computers	16,250	6,750	9,000	7,200	4,950	44,150	2,250	6,750	9,000	7,200	7,200	76,550
Historian Server	30,000					30,000						30,000
Shared allocations		525	1,190	265	940	2,920	4,835	525	1,190	265	265	10,000
	46,250	7,275	10,190	7,465	5,890	77,070	7,085	7,275	10,190	7,465	7,465	116,550
Borrowed funds												
Plant expansion - DCC unfunded					9,217,822	9,217,822	12,798,025	0	0	0	0	22,015,847
Existing users - unfunded					0	0	1,540,796					1,540,796
	0	0	0	0	9,217,822	9,217,822	14,338,821	0	0	0	0	23,556,643

	2013	2014	2015	2016	2017	Total	2018	2019	2020	2021	2022	TOTAL
Reserve Fund Transactions												0
Contributions	976,675	676,676	1,476,677	1,706,677	1,317,679	6,154,384	717,679	117,679	67,679	67,679	67,679	7,192,779
Reserve Fund Use												
Plant Expansion - DCC Unfunded	0	0	0	455,400	5,080,203	5,535,603	0	0	0	0	0	5,535,603
Outfall repairs	542,500					542,500						542,500
Hall Road Pump Station Upgrade (design 2011, construction 2012)	48,600					48,600						48,600
Plant expansion projects - existing users		82,500	525,000	510,000	2,673,181	3,790,681	2,258,475	0	0	0	0	6,049,156
	591,100	82,500	525,000	965,400	7,753,384	9,917,384	2,258,475	0	0	0	0	12,175,859
Development Cost Charges Applied												0
Commission 5th ATAD		170,000				170,000						0
Add effluent pumping capacity (stage 2+3)		297,500				297,500						170,000
Phase 2 expansion solids contact process					850,000	850,000						297,500
Additional secondary clarifier					1,500,000	1,500,000						850,000
Hall Road Pump Station Upgrade (carry over)	275,400					275,400						1,500,000
Interceptor and pumpstation expansion phase 2			2,975,000	569,500		3,544,500						275,400
Treatment plant expansion				1,700,000	12,798,025	14,498,025	12,798,025					3,544,500
	275,400	467,500	2,975,000	2,269,500	15,148,025	21,135,425	12,798,025	0	0	0	0	27,296,050
Borrowed/from Other reserves	0	0	0	(455,400)	(5,080,203)	(5,535,603)	0	0	0	0	0	33,933,450
Net from DCC's	275,400	467,500	2,975,000	1,814,100	10,067,822	15,599,822	12,798,025	0	0	0	0	67,696,900
												101,630,350
NORTHERN WASTEWATER TREATMENT CAPITAL SUMMARY												0
Total Capital	1,268,543	1,676,275	4,063,190	3,111,965	18,173,096	28,293,069	15,298,585	252,275	311,190	262,465	242,465	44,660,049
RESERVE FUNDS USE	866,500	550,000	3,500,000	2,779,500	8,603,384	16,299,384	717,679	0	0	0	0	17,017,063
BORROWED FUNDS	0	0	0	0	9,217,822	9,217,822	14,338,821	0	0	0	0	23,556,643
BYLAW FUNDS ON HAND	0	0	0	0	0	0	0	0	0	0	0	0
GRANTS/OTHER	0	0	0	0	0	0	0	0	0	0	0	0
Net Capital from Operations	402,043	1,126,275	563,190	332,465	351,890	2,775,863	242,085	252,275	311,190	262,465	242,465	4,086,343

	2013	2014	2015	2016	2017	Total	2018	2019	2020	2021	2022	TOTAL
NANOOSE (FAIRWINDS) TREATMENT PLANT												
Other Equipment												
new kiosks for #1, #3, #4, #5 pump stations - proposed budget cut	7,000					7,000						7,000
Multismart Pump station flow meters for #2, #3, #5, #6, #7, #8, #9 pumps	17,169					17,169						17,169
Isolation gates for the primary tanks	15,000					15,000						15,000
Garage addition for the new gen set for #2 pump station	35,000					35,000						35,000
Back up power supply for #8 pumpstation	35,000					35,000						35,000
primary tank dive unit	30,000					30,000						30,000
Carry forward Installation of gen-set from Hall Rd to #6 Pumpstn	10,000					10,000		30,000	15,000			55,000
Gen set for station #7				30,000	17,000	47,000						47,000
Gen set for station #8		17,000				17,000						17,000
Back up pump for station #5		15,000				15,000	15,000					30,000
Back up pump for station #4			18,000			18,000			18,000			36,000
Back up pump for station #9					15,000	15,000						15,000
General allowance	0	58,000	72,000	60,000	58,000	248,000	75,000	60,000	57,000	90,000	90,000	620,000
	149,169	90,000	90,000	90,000	90,000	509,169	90,000	90,000	90,000	90,000	90,000	959,169
Vehicles												
Replace T-17		3,500				3,500						3,500
Replace T-15				4,000		4,000						4,000
	0	3,500	0	4,000	0	7,500	0	0	0	0	0	7,500
Computers												
Plant computers(SHARED 90% TO FCPCC)	250	750	1,000	800	550	3,350	250	750	1,000	800	800	6,950
SCADA PC 1 - Nanoose computer					2,500	2,500						2,500
Internet installation and hardware	400	100	150	50	3,000	3,000						3,000
Shared allocations					175	875						1,765
	650	850	1,150	850	6,225	9,725	790	850	1,150	850	850	14,215
General Reserve Fund Use												
Genset - Pumpstation #7			85,000			85,000						85,000
	0	0	85,000	0	0	85,000	0	0	0	0	0	85,000
General Reserve Fund Contributions												
	53,080	47,080	53,080	47,080	47,080	247,400	68,132	88,132	114,132	134,132	174,132	757,928
FAIRWINDS(NANOOSE) WASTEWATER TREATMENT CAPITAL SUMMARY												
Total Capital	149,819	94,350	176,150	94,850	96,225	611,394	90,790	90,850	91,150	90,850	90,850	1,065,884
RESERVE FUNDS USE	0	0	85,000	0	0	85,000	0	0	0	0	0	85,000
BORROWED FUNDS	0	0	0	0	0	0	0	0	0	0	0	0
BYLAW FUNDS ON HAND						0						0
GRANTS/OTHER						0						0
Net Capital from Operations	149,819	94,350	91,150	94,850	96,225	526,394	90,790	90,850	91,150	90,850	90,850	980,884

	2013	2014	2015	2016	2017	Total	2018	2019	2020	2021	2022	TOTAL
DUKE POINT TREATMENT PLANT												
Other Equipment												
Suction valves on pumps (x4)			7,500		7,500	15,000		7,500		7,500	7,500	37,500
2 New Blowers		40,000	40,000			40,000						40,000
Pump upgrade to DPPS						40,000						40,000
Manhole #3 repair	10,000					10,000						10,000
General allowance				30,000	27,500	57,500	35,000	27,500	35,000	27,500	27,500	210,000
	10,000	40,000	47,500	30,000	35,000	162,500	35,000	35,000	35,000	35,000	35,000	337,500
Vehicles												
T-23 3/4 ton truck			4,000			4,000			4,000			8,000
T-21 cargo van 4wd truck replacement	3,000					3,000	2,500					5,500
T-22 replace (Dump Truck)			6,000			6,000			6,000			12,000
T-28 Van				2,500		2,500				2,500	2,500	7,500
	3,000	0	6,000	2,500	0	11,500	6,300	0	6,000	2,500	2,500	28,800
Computers												
Plant computers split with GNPCC for Lab PC			2,500			2,500			2,500	2,500	2,500	10,000
Shared allocations	450	85	90	45	150	820	560	85	90	45	45	1,645
	450	85	2,590	45	150	3,320	560	85	2,590	2,545	2,545	11,645
DUKE POINT WASTEWATER TREATMENT CAPITAL SUMMARY												
Total Capital	13,450	40,085	56,090	32,545	35,150	177,320	41,860	35,085	43,590	40,045	40,045	377,945
RESERVE FUNDS USE	0	0	0	0	0	0	0	0	0	0	0	0
BORROWED FUNDS	0	0	0	0	0	0	0	0	0	0	0	0
BYLAW FUNDS ON HAND	0	0	0	0	0	0	0	0	0	0	0	0
GRANTS/OTHER	0	0	0	0	0	0	0	0	0	0	0	0
Net Capital from Operations	13,450	40,085	56,090	32,545	35,150	177,320	41,860	35,085	43,590	40,045	40,045	377,945