

**NORTH SHORE WATER COMMISSION**  
**2019 - 2038 APPROVED CAPITAL IMPROVEMENT PLAN**

(Staffing Level: 1 Manager, 1 Foreman, 1 Technician Mechanic, 4 Relief Op/Tech, Interns and Gardners)  
November 8, 2017

**2019 - Capital Improvement Plan** **\$139,000**

<b>Raw Water Pump #2 and #4 Valve Replacements (2019-1)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	7%	\$6,000
Contracted Services	2%	\$2,000
Direct Purchase of Materials and Equipment	83%	\$70,000
Engineering	2%	\$2,000
Contingency	5%	\$4,000
		<b>\$84,000</b>

<b>2019 - Engineering of Reservoir Improvements Project (2019-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	0%	\$0
Contracted Services	0%	\$0
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	91%	\$50,000
Contingency	9%	\$5,000
		<b>\$55,000</b>

**2020 - Capital Improvement Plan** **\$1,117,000**

<b>Reservoir Improvements - Major Construction (2020-1)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	0%	\$0
Contracted Services	75%	\$833,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	10%	\$117,000
Contingency	15%	\$167,000
		<b>\$1,117,000</b>

**2021 - Capital Improvement Plan** **\$168,000**

<b>Filter Improvements (2021-1)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	12%	\$12,000
Contracted Services	10%	\$10,000
Direct Purchase of Materials and Equipment	70%	\$70,000
Engineering	4%	\$4,000
Contingency	4%	\$4,000
		<b>\$100,000</b>

<b>Security Camera Replacements (2021-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	6%	\$2,000
Contracted Services	0%	\$0
Direct Purchase of Materials and Equipment	83%	\$30,000
Engineering	0%	\$0
Contingency	11%	\$4,000
		<b>\$36,000</b>

<b>IT Improvements (2021-3)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	6%	\$2,000

Contracted Services	0%	\$0
Direct Purchase of Materials and Equipment	88%	\$28,000
Engineering	0%	\$0
Contingency	6%	\$2,000
		<b>\$32,000</b>

**2022 - Capital Improvement Plan** **\$110,000**

<b>Flat Roof Replacement (2022-1)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	0%	\$0
Contracted Services	91%	\$100,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	0%	\$0
Contingency	9%	\$10,000
		<b>\$110,000</b>

**2023 - Capital Improvement Plan** **\$216,000**

<b>Raw Pump 3 Installation and VFD Cabinet (2023-1)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	0%	\$0
Contracted Services	91%	\$100,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	0%	\$0
Contingency	9%	\$10,000
		<b>\$110,000</b>

<b>Filter Improvements (2023-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	12%	\$6,000
Contracted Services	10%	\$5,000
Direct Purchase of Materials and Equipment	70%	\$35,000
Engineering	4%	\$2,000
Contingency	4%	\$2,000
		<b>\$50,000</b>

<b>IT Improvements (2023-3)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	7%	\$4,000
Contracted Services	0%	\$0
Direct Purchase of Materials and Equipment	89%	\$50,000
Engineering	0%	\$0
Contingency	4%	\$2,000
		<b>\$56,000</b>

**2024 - Capital Improvement Plan** **\$210,000**

<b>Raw Pump 3 Installation and VFD Cabinet (2024-1)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	0%	\$0
Contracted Services	91%	\$100,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	0%	\$0
Contingency	9%	\$10,000
		<b>\$110,000</b>

<b>Filter Improvements (2024-2)</b>	<b>PCT</b>	<b>EXPENSE</b>
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Self-performed Labor	12%	\$12,000
Contracted Services	10%	\$10,000
Direct Purchase of Materials and Equipment	70%	\$70,000
Engineering	4%	\$4,000
Contingency	4%	\$4,000
		<b>\$100,000</b>

**2025 - Capital Improvement Plan** **\$270,000**

<b>Port Washington Road &amp; Bradley Road Interconnection (2025-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	93%	\$250,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	4%	\$10,000
Contingency	4%	\$10,000
		<b>\$270,000</b>

**2026 - Capital Improvement Plan** **\$280,000**

<b>Basin 1 Rehabilitation (2026-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	87%	\$200,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	9%	\$20,000
Contingency	4%	\$10,000
		<b>\$230,000</b>

<b>Filter Improvements (2026-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	12%	\$6,000
Contracted Services	10%	\$5,000
Direct Purchase of Materials and Equipment	70%	\$35,000
Engineering	4%	\$2,000
Contingency	4%	\$2,000
		<b>\$50,000</b>

**2027 - Capital Improvement Plan** **\$280,000**

<b>Basin 2 Rehabilitation (2027-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	87%	\$200,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	9%	\$20,000
Contingency	4%	\$10,000
		<b>\$230,000</b>

<b>Filter Improvements (2027-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	12%	\$6,000
Contracted Services	10%	\$5,000
Direct Purchase of Materials and Equipment	70%	\$35,000
Engineering	4%	\$2,000
Contingency	4%	\$2,000
		<b>\$50,000</b>

**2028 - Capital Improvement Plan** **\$280,000**

<b>Basin 3 Rehabilitation (2028-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	87%	\$200,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	9%	\$20,000
Contingency	4%	\$10,000
		<b>\$230,000</b>

<b>Filter Improvements (2028-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	12%	\$6,000
Contracted Services	10%	\$5,000
Direct Purchase of Materials and Equipment	70%	\$35,000
Engineering	4%	\$2,000
Contingency	4%	\$2,000
		<b>\$50,000</b>

**2029 - Capital Improvement Plan** **\$280,000**

<b>Basin 4 Rehabilitation (2029-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	87%	\$200,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	9%	\$20,000
Contingency	4%	\$10,000
		<b>\$230,000</b>

<b>Filter Improvements (2029-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	12%	\$6,000
Contracted Services	10%	\$5,000
Direct Purchase of Materials and Equipment	70%	\$35,000
Engineering	4%	\$2,000
Contingency	4%	\$2,000
		<b>\$50,000</b>

**2030 - Capital Improvement Plan** **\$280,000**

<b>Basin 5 Rehabilitation (2030-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	87%	\$200,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	9%	\$20,000
Contingency	4%	\$10,000
		<b>\$230,000</b>

<b>Filter Improvements (2030-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	12%	\$6,000
Contracted Services	10%	\$5,000
Direct Purchase of Materials and Equipment	70%	\$35,000
Engineering	4%	\$2,000
Contingency	4%	\$2,000

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**\$50,000**

**2031 - Capital Improvement Plan** **\$330,000**

<b>SCADA Hardware Replacement (2031-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	89%	\$250,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	7%	\$20,000
Contingency	4%	\$10,000
		<b>\$280,000</b>

<b>Filter Improvements (2031-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	12%	\$6,000
Contracted Services	10%	\$5,000
Direct Purchase of Materials and Equipment	70%	\$35,000
Engineering	4%	\$2,000
Contingency	4%	\$2,000
		<b>\$50,000</b>

**2032 - Capital Improvement Plan** **\$176,000**

<b>SCADA Software Update (2032-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	91%	\$100,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	0%	\$0
Contingency	9%	\$10,000
		<b>\$110,000</b>

<b>IT Improvements (2032-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	6%	\$4,000
Contracted Services	0%	\$0
Direct Purchase of Materials and Equipment	91%	\$60,000
Engineering	0%	\$0
Contingency	3%	\$2,000
		<b>\$66,000</b>

**2033 - Capital Improvement Plan** **\$200,000**

<b>Remaining Filter Improvements (2033-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	12%	\$12,000
Contracted Services	10%	\$10,000
Direct Purchase of Materials and Equipment	70%	\$70,000
Engineering	4%	\$4,000
Contingency	4%	\$4,000
		<b>\$100,000</b>

<b>Basin Valve Actuator Replacements (2033-2)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	12%	\$12,000
Contracted Services	10%	\$10,000
Direct Purchase of Materials and Equipment	70%	\$70,000
Engineering	4%	\$4,000

Contingency	4%	\$4,000
		<b>\$100,000</b>

**2034 - Capital Improvement Plan** **\$340,000**

<b>Replace 2400V Electrical Equipment (2034-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	88%	\$300,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	9%	\$30,000
Contingency	3%	\$10,000
		<b>\$340,000</b>

**2035 - Capital Improvement Plan** **\$1,110,000**

<b>UV Equipment Upgrade (2035-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	90%	\$1,000,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	9%	\$100,000
Contingency	1%	\$10,000
		<b>\$1,110,000</b>

**2036 - Capital Improvement Plan** **\$230,000**

<b>HVAC Upgrade (2036-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	87%	\$200,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	9%	\$20,000
Contingency	4%	\$10,000
		<b>\$230,000</b>

**2037 - Capital Improvement Plan** **\$130,000**

<b>IT Improvements (2037-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	6%	\$4,000
Contracted Services	0%	\$0
Direct Purchase of Materials and Equipment	91%	\$60,000
Engineering	0%	\$0
Contingency	3%	\$2,000
		<b>\$66,000</b>

<b>Security Camera Replacements (2037-2)</b>	<b>PCT</b>	<b>COST</b>
Self-performed Labor	6%	\$4,000
Contracted Services	0%	\$0
Direct Purchase of Materials and Equipment	78%	\$50,000
Engineering	0%	\$0
Contingency	16%	\$10,000
		<b>\$64,000</b>

**2038 - Capital Improvement Plan** **\$145,000**

<b>Generator Replacement at Klode Park (2038-1)</b>	<b>PCT</b>	<b>EXPENSE</b>
Self-performed Labor	0%	\$0
Contracted Services	90%	\$130,000
Direct Purchase of Materials and Equipment	0%	\$0
Engineering	7%	\$10,000
Contingency	3%	\$5,000
		<b>\$145,000</b>

<b>TOTAL EXPENDITURES</b>	<b>\$6,291,000</b>
<b>NUMBER OF YEARS</b>	<b>20</b>
<b>AVERAGE ANNUAL EXPENDITURES</b>	<b>\$314,550</b>