



**ENGLISHMAN RIVER WATER SERVICE JOINT VENTURE
MANAGEMENT BOARD MEETING AGENDA**

WEDNESDAY, NOVEMBER 17, 2021

Immediately following the adjournment of the AWS Board Meeting

The Board recognizes the people of the Coast Salish Nations and their traditional territory upon which we gather with gratitude.

1. CALL TO ORDER

2. APPROVAL OF AGENDA

a) ***Recommendation:***

1. THAT the agenda be approved as presented.

3. ADOPTION OF MINUTES

a) Minutes of the Englishman River Water Service Management Board Meeting held June 1, 2021 - Pages 3 - 4

Recommendation:

1. THAT the minutes of the Englishman River Water Services Management Board meeting held June 1, 2021, be adopted.

4. CORRESPONDENCE

a) J. Damborg, Senior Project Biologist - BC Conservation Foundation - Project Support for Englishman River 'Claybank' Assessment and Remediation Project - Pages 5 - 7

Recommendation:

1. THAT the correspondence dated October 22, 2021, from the BC Conservation Foundation regarding project support for the Englishman River 'Claybank' assessment and remediation project be received.

5. REPORTS

a) B. Woods, Director of Operations – Englishman River Water Service (ERWS) Operations Update - Verbal Report

Recommendation:

1. THAT the presentation by B. Woods, regarding the Englishman River Water Service Operation Update be received for information.

- b) J. Holmes, A/Director of Finance - Englishman River Water Service 2021 Budget Amendments - Pages 9 - 15
Board consideration of the 2021 budget amendments.

Recommendation:

1. **THAT the report from the Englishman River Water Service Management Committee, dated November 4, 2021, entitled "Englishman River Water Service (ERWS) 2021 Budget Amendments" be received.**
2. **THAT the Englishman River Water Service Management Board approve the 2021 - 2025 Amended Financial Plan attached as Schedule A for the ERWS.**
3. **THAT the Englishman River Water Service Management Board recommends the Joint Venturers adopt their respective portions of the 2021 - 2025 Amended Financial Plan attached as Schedule B and C for the ERWS.**

- c) J. Holmes, A/Director of Finance - Englishman River Water Service 2022 - 2026 Financial Plan - Pages 17 - 33
Board consideration of the ERWS 2022 - 2026 financial plan.

Recommendation:

1. **THAT the report from the Englishman River Water Service Management Committee, dated November 9, 2021, entitled "Englishman River Water Service (ERWS), 2022 - 2026 Financial Plan" be received.**
2. **THAT the Englishman River Water Service Management Board approve the ERWS 2022 - 2026 Financial Plan, attached as Schedule A.**
3. **THAT the Englishman River Water Service Management Board recommends the Joint Venturers adopt their respective portions of the ERWS 2022 - 2026 Financial Plan, attached as Schedule B - Parksville and Schedule C - RDN.**

6. **UNFINISHED BUSINESS**

7. **NEW BUSINESS**

8. **QUESTIONS/COMMENTS** - *Public Comment - five minutes each maximum per speaker.*

No comments were received prior to the agenda deadline.

9. **SPECIAL BUSINESS**

Pursuant to Section 90 (1) (i) of the *Community Charter*, Council proceed to a closed meeting to consider an item relating to the receipt of advice that is subject to solicitor-client privilege.

10. **ADJOURNMENT**

**MINUTES OF THE ENGLISHMAN RIVER WATER SERVICE JOINT VENTURE
MANAGEMENT BOARD MEETING**

Tuesday, June 1, 2021

10:30 A.M.

Held Electronically

In Attendance: Councillor D. O'Brien Chair
Councillor E. Mayne City of Parksville
Director B. Rogers Regional District of Nanaimo
Director L. Wallace Regional District of Nanaimo

Also in Attendance: L. Butterworth City of Parksville
J. Doxey City of Parksville
J. Holmes City of Parksville
K. Kehler City of Parksville
A. Weeks City of Parksville
B. Woods City of Parksville
P. Carlyle Regional District of Nanaimo
S. De Pol Regional District of Nanaimo
M. Walters Regional District of Nanaimo
B. Weir Town of Qualicum Beach
R. Graves Recording Secretary

CALL TO ORDER

The Chair called the meeting to order and respectfully acknowledged the Coast Salish Nations on whose traditional territory the meeting took place.

APPROVAL OF THE AGENDA

It was moved and seconded that the agenda be approved as presented.

CARRIED UNANIMOUSLY

ADOPTION OF MINUTES

Englishman River Water Service Management Board Meeting - February 16, 2021

It was moved and seconded that the minutes of the Englishman River Water Service Management Board meeting held February 16, 2021, be adopted.

CARRIED UNANIMOUSLY

REPORTS

Englishman River Water Service Joint Venture Draft Audited Financial Statements for the Year Ending December 31, 2020 - Lenora Lee / Julie Robinson, KPMG

It was moved and seconded:

That the Englishman River Water Service Joint Venture Draft Audited Financial Statement be received and;

That the Englishman River Water Service Joint Venture Draft Audited Financial Statement be approved.

CARRIED UNANIMOUSLY

Englishman River Water Service Joint Venture Audit Findings Letter

It was moved and seconded that the Englishman River Water Service Joint Venture Audit Findings Letter be received.

CARRIED UNANIMOUSLY

Englishman River Water Service Operations Update

Joe Doxey, City of Parksville, provided an update on the Englishman River Water Service operations.

Englishman River Water Service Joint Venture Agreement Extension - Belinda Woods, City of Parksville

It was moved and seconded:

That the report from the Englishman River Water Service Management Committee dated June 1, 2021 be received; and,

That the Englishman River Water Service Management Board recommend approval of the one-year extension of the Englishman River Water Service Partnering Agreement by the joint venture partners; and,

That the Englishman River Water Service Management Board recommend approval of a \$5,000 budget increase for legal services by the joint venture partners.

CARRIED UNANIMOUSLY

NEW BUSINESS

It was moved and seconded that a discussion occur in regard to Regional District of Nanaimo staff in concert with a qualified consultant preparing a study to report on consumption and supply capacity of the Englishman River Water Service.

After debate the motion was withdrawn.

QUESTIONS / COMMENTS

Trevor Wicks, Trentec Innovations, gave a presentation on the clay banks.

ADJOURNMENT

It was moved and seconded that the meeting be adjourned.

CARRIED UNANIMOUSLY

TIME: 11:54 A.M.

CHAIR



October 22, 2021

Heidi Cao
Project Engineer
City of Parksville Operations
1116 Herring Gull Way
Parksville, BC
V9P 1R2

Dear Heidi

RE: Project Support for Englishman River ‘Claybank’ assessment and remediation project

Hi Heidi, as discussed over the phone on Oct 21 2021, BCCF is currently in the process of writing a proposal to the Habitat Conservation Trust Foundation (HCTF) to support a biological and physical assessment of a highly active/failing bank on the Englishman River, commonly referred to as the “Claybank”. The proposal is due at 16:30 Nov 5, 2021.

BCCF is looking for support in principle and potential partnership/collaboration for this project and is approaching a number of stakeholders, including the Englishman River Water Service (ERWS). Given it operates a water intake/filtration facility located downstream of the Claybank, the ERWS may realize some benefits if mitigation of this site was implemented.

In order to facilitate in the grant writing process there a number of items that the ERWS could provide that may assist in this process:

1. A letter of support, in principle stating the support of the ERWS in general for the project, you can include any benefits that you feel may arise from a mitigation project, if the clay is negatively affecting the ERWS at all etc.
2. A commitment from the ERWS to share WQ data collected at the intake, specifically turbidity and or TSS parameters, if and when available. (this may provide some direct cost savings to the project, I can include the ERWS as an in-kind contributor)
3. A list of benefits (maybe even rough estimates of potential cost savings, if possible) the ERWS may realize if the claybank sediment source was fixed.

I have attached an executive summary below for your reference, any comments or concerns are welcome.

Regards

Jeremy Damborg
Senior Project Biologist
BC Conservation Foundation
#105-1885 Boxwood Road
Nanaimo, BC. V9S 5X9
C: 250 714-9458

Head Office

#206 - 17564 56A Ave
Surrey, B.C. V3S 1G3
Tel: (604) 576-1433
Fax (604) 576-1482
Hoffice@bccf.com

Regional Offices

#200 - 1383 McGill Rd
Kamloops, B.C. V2C 6K7
Tel: (250) 828-2551
Fax (250) 828-2597
kamloops@bccf.com

#202 - 17564 56A Ave
Surrey, B.C. V3S 1G3
Tel: (604) 576-1432
Fax (604) 576-1482
lmregion@bccf.com

#105 – 1885 Boxwood Rd
Nanaimo, B.C V9S 5X9
Tel: (250) 390-2525
nanaimo@bccf.com



The overarching goal of this project is to investigate, determine impacts, and potentially mitigate and monitor a point source of sediment, known as the "Claybanks" on the lower Englishman River. Though this site has been present, and a source of sediment into the Lower Englishman River for many decades, in the last 2-3 years there have been numerous large scale slope failures, and consequently, a consistent and significant sediment input into the river. The bank is approximately 30 m high and over 150 m long, and has receded by an estimated 20 m in the last three years, perhaps 10 meters in the last 12 months as shown by drone/photo-point monitoring carried out by the Mid Vancouver Island habitat enhancement society MVIHES (Photos Attached). Estimated material inputs into the river between October 2020 and March 2021 are as high as 45,000 m³.

The project at large will be completed in four phases.

- 1. Pre-condition assessment and monitoring (\$65,000)*
- 2. Feasibility, Engineering and Design(\$80,000)*
- 3. Construction (\$500,000)*
- 4. Post construction monitoring. (\$30,000)*

The Englishman River Winter-run Steelhead population remains to be at a severe conservation crisis management level with peak counts of as few as 20 individuals in recent years (M. McCulloch, Anad. Fisheries Specialist, FLNRORD). Historically, downstream of the Claybank held the majority of the steelhead run, in addition, this area it holds the vast majority of the spawning habitat for Chum, Pink and Chinook salmon. Though natural sediment loads are manageable to fish, increases in silt and clays have been shown to reduce gravel porosity, and inter-gravel flows resulting in negative impacts on the survival of eggs and alevins of pacific salmon (Gaboury and Damborg 2012, Clough 2013).

In addition to having potentially harmful impacts to already reduced pacific salmon and steelhead runs, the continuous sediment clouds water making stock assessment very difficult. Thirdly, the Englishman River is a community watershed which provides drinking water for much of the local area, including the City of Parksville. Lower sediment loads will undoubtedly have only positive results with regards to long term maintenance, filtration, and overall operating costs of the Englishman River Water Service's (ERWS) water intake and facility (Heidi Cao, Engineer, City of Parksville).

This first phase (covered by this proposal), of what is a potentially quite a large project, is to compete monitoring and assessment of the Claybank. Continued photo-point monitoring, and turbidity monitoring upstream and downstream of the site will commence. At the time of writing, BCCF is planning to borrow and install two YSI in-situ turbidity sensors to gather turbidity data over the winter of 2021/22. Data gathered in 2021/22 will be summarized and used, in conjunction with historical data supplied by MOE, and others (who have had turbidity loggers operating for a number of years in the Lower Englishman River), to determine point source sediment contributions of the claybank. These data will be used by local experts, in conjunction with slope stability assessment to determine the possible benefits and risks of completing a mitigation project at this site. An ecosystem approach will be taken to ensure that we are not helping one aspect, at the expense of another (e.g. natural sediment inputs are required to maintain a functioning estuary, especially during a time of sea level rise). However Eelgrass beds can be

Head Office

#206 - 17564 56A Ave
Surrey, B.C. V3S 1G3
Tel: (604) 576-1433
Fax (604) 576-1482
Hoffice@bccf.com

Regional Offices

#200 - 1383 McGill Rd
Kamloops, B.C. V2C 6K7
Tel: (250) 828-2551
Fax (250) 828-2597
kamloops@bccf.com

#202 - 17564 56A Ave
Surrey, B.C. V3S 1G3
Tel: (604) 576-1432
Fax (604) 576-1482
lmregion@bccf.com

#105 - 1885 Boxwood Rd
Nanaimo, B.C V9S 5X9
Tel: (250) 390-2525
nanaimo@bccf.com

smothered by excess sediment deposition over time. In addition increases suspended sediments can decrease light penetration and reduce available habitat for Eelgrass (Boyer and Wright 2015).

Stakeholders will be approached and a project team developed to assist with decision making, as well as to assist with funding procurement. Potential stakeholders/project team may include BCCF, MoFLNRO, DFO, the ERWS, City of Parksville, the Regional District of Nanaimo, MVIHES, Northwest Hydraulic Consultants, and the Nature Trust of BC.

If restoration works are completed, it is expected that the entire river downstream will benefit (~7 km) from a reduced sediment load. This will help maintain and/or improve spawning and rearing habitat for many salmon and trout species. It may also benefit the estuary and marine habitat, including eelgrass beds and intertidal marsh habitat.

The total value of the project for the 2022/2023 fiscal year is estimated at \$64,579, with HCTF providing \$40,179. Partnership and in-kind funding from PSF and MVHIVES, MOE, FLNRORD, DFO, ERWS, and the Nature Trust make up the remainder.

Head Office

#206 - 17564 56A Ave
Surrey, B.C. V3S 1G3
Tel: (604) 576-1433
Fax (604) 576-1482
Hoffice@bccf.com

Regional Offices

#200 - 1383 McGill Rd
Kamloops, B.C. V2C 6K7
Tel: (250) 828-2551
Fax (250) 828-2597
kamloops@bccf.com

#202 - 17564 56A Ave
Surrey, B.C. V3S 1G3
Tel: (604) 576-1432
Fax (604) 576-1482
lmregion@bccf.com

#105 – 1885 Boxwood Rd
Nanaimo, B.C V9S 5X9
Tel: (250) 390-2525
nanaimo@bccf.com

PAGE INTENTIONALLY LEFT BLANK



November 4, 2021

REPORT TO: ENGLISHMAN RIVER WATER SERVICE MANAGEMENT BOARD

FROM: ENGLISHMAN RIVER WATER SERVICE MANAGEMENT COMMITTEE

SUBJECT: ENGLISHMAN RIVER WATER SERVICE (ERWS) 2021 BUDGET AMENDMENTS

PURPOSE: *Board Consideration of the 2021 budget amendments*

EXECUTIVE SUMMARY:

The purpose of this report is to provide the Englishman River Water Service (ERWS) Board Members with an update on 2021 budget amendments and seek approval for amendments to the 2021-2025 Financial Plan.

RECOMMENDATIONS:

1. THAT the report from the Englishman River Water Service Management Committee, dated November 4, 2021, entitled "Englishman River Water Service (ERWS) 2021 Budget Amendments" be received.
2. THAT the Englishman River Water Service Management Board approve the 2021-2025 Amended Financial Plan attached as Schedule A for the ERWS.
3. THAT the Englishman River Water Service Management Board recommends the Joint Venturers adopt their respective portions of the 2021-2025 Amended Financial Plan attached as Schedule B and C for the ERWS.

BACKGROUND:

The ERWS Water Treatment Plant began delivering potable water to residents in Parksville and Electoral Area E (Nanoose Bay) in December 2019. The ERWS was formed in 2011 to secure bulk water supply from the Englishman River for these residents. The ERWS drinking water project included:

- An in-river water supply intake and raw water pumping station designed and located to accommodate residents' and visitors' access and use of the Englishman River and to protect aquatic habitat.
- A water treatment plant with a capacity of 16 million litres per day of membrane filtration to comply with new water regulatory treatment standards including ultraviolet light and chlorine disinfection.
- Transmission mains to existing water reservoirs supplying homes and businesses of Parksville and the Nanoose Bay Peninsula Water Service Area with potable water.

The total cost of the project was approximately \$41.7 million and was funded with approximately \$12 million from federal and provincial government grants (New Building Canada Fund: Small Communities Fund and Clean Water and Wastewater Fund) and the balance by the City of Parksville and the Regional District of Nanaimo requisitions.

The Island Health operating permit was issued on November 8, 2019, at which time the 21-day function test was successfully completed before provision of water to residents. An opening ceremony was held on January 9, 2020.

The 2021 budget was approved by the ERWS Board in February 2021. The plant is still in a commissioning phase in 2021 and the budget contained several contingencies to allow staff to deal with unplanned issues that may arise during the commissioning and development of efficient operations.

Now, operating the plant for over a year, the ERWS staff have a more defined understanding of the costs necessary to continue to meet regulatory requirements and to improve operational efficiencies, safety, and resiliency. While the overall budget for 2021 has not changed dramatically, monies will need to be reallocated within the budget to meet the 2021 operational needs.

OPTIONS:

1. Approve the Amended Financial Plan and recommend the Joint Venturers approve their respective portions of the amended plan.
2. Provide the ERWS Management Committee with other direction.

ANALYSIS:

Approval of the Amended Financial Plan will best align the budget to the actual monies spent. If changes are proposed by the Board, staff request that those items be separated from the budget amendments that are acceptable to avoid delays in operational work tasks.

Changes to the 2021 Budget from the amounts budgeted in the 2021-2025 Financial plan are outlined as attached in Appendix A.

FINANCIAL:

The 2021-2025 Amended Financial Plan includes increasing the budget by \$10,000 as outlined in Appendix A attached to this report.

REFERENCES:

Englishman River Water Service Joint Venture Agreement - July 1, 2016

Respectfully submitted,

Original signed by B. Woods

B. WOODS
Director of Operations, City of Parksville

Original signed by L. Butterworth

L. BUTTERWORTH
Director of Finance, City of Parksville

ENDORSED BY:

Original signed by K. Kehler

K. KEHLER, MPA
Chief Administrative Officer, City of Parksville
On behalf of the ERWS/ AWS Management Committee

SCHEDULE A 2021-225 Amended Financial Plan

ENGLISHMAN RIVER WATER SERVICE
2021 - 2025 AMENDED FINANCIAL PLAN (Summarized)

Englishman River Water Service	2021 Actual-YTD	2021 Budget	2022 Budget	2023 Budget	2024 Budget	2025 Budget
REVENUE AND CONTRIBUTIONS						
<u>Joint Venture Requisitions</u>						
Parksville Requisition (74 %)	\$ 706,534	\$ 1,354,100	\$ 1,064,900	\$ 839,500	\$ 899,400	\$ 865,400
RDN Requisition (26%)	244,716	472,300	374,100	295,000	316,000	304,000
Total Joint Venture Requisitions	951,250	1,826,400	1,439,000	1,134,500	1,215,400	1,169,400
<u>Other Revenue</u>						
	-	-	-	-	-	-
TOTAL REVENUE AND CONTRIBUTIONS	951,250	\$ 1,826,400	\$ 1,439,000	\$ 1,134,500	\$ 1,215,400	\$ 1,169,400
EXPENDITURES						
<u>Operations</u>						
Administration	197,072	256,800	190,500	190,400	190,300	192,800
Operations	585,875	760,100	700,500	715,600	731,100	747,100
Maintenance	58,671	119,500	48,000	48,500	49,000	49,500
Minor Capital	1,960	50,000	120,000	50,000	80,000	50,000
Transfer to Reserves	-	-	100,000	100,000	100,000	100,000
Total Expenses & Reserve Transfers	843,578	1,186,400	1,159,000	1,104,500	1,150,400	1,139,400
<u>Capital</u>						
Land Acquisition & Improvements	-	-	-	-	-	-
Equipment	-	60,000	30,000	30,000	65,000	30,000
River Intake / Supply Mains	71,108	80,000	250,000	-	-	-
Water Treatment	6,454	50,000	-	-	-	-
Aquifer Storage and Recovery	-	-	-	-	-	-
Settling Ponds	30,110	450,000	-	-	-	-
Total Capital	107,672	640,000	280,000	30,000	65,000	30,000
TOTAL EXPENDITURES	951,250	\$ 1,826,400	\$ 1,439,000	\$ 1,134,500	\$ 1,215,400	\$ 1,169,400
NET SURPLUS (DEFICIT)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

SCHEDULE B Parksville Share of Costs

**ENGLISHMAN RIVER WATER SERVICE
2021 - 2025 AMENDED FINANCIAL PLAN
PARKSVILLE ALLOCATION - 74%**

	2021 Budget	2022 Budget	2023 Budget	2024 Budget	2025 Budget
REVENUE AND CONTRIBUTIONS					
<u>Joint Venture Requisitions</u>					
Parksville Requisition (74 %)	\$ 1,354,100	\$ 1,064,900	\$ 839,500	\$ 899,400	\$ 865,400
<u>Other Revenue</u>					
Grants - Small Communities Fund & CWWF	-	-	-	-	-
Transfer From Reserves	-	-	-	-	-
Total Other Revenue	-	-	-	-	-
TOTAL REVENUE AND CONTRIBUTIONS	\$ 1,354,100	\$ 1,064,900	\$ 839,500	\$ 899,400	\$ 865,400
EXPENDITURES					
<u>Operations</u>					
Administration	190,000	141,000	140,900	140,800	142,700
Operations	562,500	518,400	529,500	541,000	552,900
Maintenance	88,400	35,500	35,900	36,300	36,600
Minor Capital	37,000	88,800	37,000	59,200	37,000
Transfer to Reserves	-	74,000	74,000	74,000	74,000
Total Expenses & Reserve Transfers	877,900	857,700	817,300	851,300	843,200
<u>Capital</u>					
Land Acquisition & Improvements	-	-	-	-	-
Equipment	44,400	22,200	22,200	48,100	22,200
River Intake / Supply Mains	61,800	185,000	-	-	-
Water Treatment	37,000	-	-	-	-
Aquifer Storage and Recovery	-	-	-	-	-
Settling Ponds	333,000	-	-	-	-
Total Capital	476,200	207,200	22,200	48,100	22,200
TOTAL EXPENDITURES	\$ 1,354,100	\$ 1,064,900	\$ 839,500	\$ 899,400	\$ 865,400
NET SURPLUS (DEFICIT)	\$ -	\$ -	\$ -	\$ -	\$ -

SCHEDULE C Regional District of Nanaimo Share of Costs

**ENGLISHMAN RIVER WATER SERVICE
2021 - 2025 AMENDED FINANCIAL PLAN
RDN ALLOCATION - 26%**

	2021 Budget	2022 Budget	2023 Budget	2024 Budget	2025 Budget
REVENUE AND CONTRIBUTIONS					
<u>Joint Venture Requisitions</u>					
RDN Requisition (26%)	\$ 472,300	\$ 374,100	\$ 295,000	\$ 316,000	\$ 304,000
 <u>Other Revenue</u>					
Grants - Small Communities Fund & CWWF	-	-	-	-	-
Transfer From Reserves	-	-	-	-	-
Total Other Revenue	-	-	-	-	-
TOTAL REVENUE AND CONTRIBUTIONS	\$ 472,300	\$ 374,100	\$ 295,000	\$ 316,000	\$ 304,000
EXPENDITURES					
<u>Operations</u>					
Administration	66,800	49,500	49,500	49,500	50,100
Operations	197,600	182,100	186,100	190,100	194,200
Maintenance	31,100	12,500	12,600	12,700	12,900
Minor Capital	13,000	31,200	13,000	20,800	13,000
Transfer to Reserves	-	26,000	26,000	26,000	26,000
Total Expenses & Reserve Transfers	308,500	301,300	287,200	299,100	296,200
 <u>Capital</u>					
Land Acquisition & Improvements	-	-	-	-	-
Equipment	15,600	7,800	7,800	16,900	7,800
River Intake / Supply Mains	18,200	65,000	-	-	-
Water Treatment	13,000	-	-	-	-
Aquifer Storage and Recovery	-	-	-	-	-
Settling Ponds	117,000	-	-	-	-
Total Capital	163,800	72,800	7,800	16,900	7,800
TOTAL EXPENDITURES	\$ 472,300	\$ 374,100	\$ 295,000	\$ 316,000	\$ 304,000
 NET SURPLUS (DEFICIT)	 \$ -				

APPENDIX A Changes from Prior Approved Budget

**Englishman River Water Service
2021-2025 AMENDED Financial Plan**

	2021	2022	2023	2024	2025	
<u>Budget Changes from 2021 Final Budget</u>						
<u>Operating</u>						
Administration - Salaries	40,000					Add Manager's time to budget
Administration - Benefits	12,000					Add Manager's benefits to budget
Administration - Consulting	(40,000)					Transfr contingency to Salaries
Administration - Contracts	(43,000)					Defer environmental monitoring one year
Administration - Legal	15,000					JV Agreement revisions and ongoing legal issues
Administration - Licenses	3,500	3,600	3,700	3,800	3,900	River usage license fees (moved from AWS)
Operations - Salaries	70,000					More staff to work thru operating issues
Operations - Garbage Disposal	(26,000)					Disposal of Geo Bag sludge not required
Operations - Parts/Materials/Supplies	30,000					Incr budget to estimated actual costs
Maintenance - Salaries contingency	(20,000)					Transfer contingency to Operations
Maintenance - Spare parts	35,000					Build inventory of critical parts
Maintenance - Parts/Materials/Supplies	12,500					Budget was too low
GeoBags - Parts/Materials/Supplies	(32,000)					Not required for 2021
Minor Capital - Chlorine Analyzer	(7,000)					Budget not required-project complete
<u>Capital</u>						
River Intake - Weir Screens	(70,000)					Project deferred-remove 2021 budget
River Intake - Pump Seal	20,000					Budget increase needed
Springwood Transmission Line	10,000					Contractor deficiencies (100% City funded)
Total changes from Previous plan	10,000	3,600	3,700	3,800	3,900	

PAGE INTENTIONALLY LEFT BLANK



November 9, 2021

REPORT TO: ENGLISHMAN RIVER WATER SERVICE MANAGEMENT BOARD

FROM: ENGLISHMAN RIVER WATER SERVICE MANAGEMENT COMMITTEE

SUBJECT: ENGLISHMAN RIVER WATER SERVICE (ERWS) 2022 - 2026 FINANCIAL PLAN

PURPOSE: *Board Consideration of the ERWS 2022 - 2026 Financial Plan*

EXECUTIVE SUMMARY:

The purpose of this report is to provide the Englishman River Water Service (ERWS) Board Members with an update on new budget items proposed for 2022 to 2026 and to seek approval for the 2022-2026 Financial Plan.

RECOMMENDATIONS:

1. THAT the report from the Englishman River Water Service Management Committee, dated November 9, 2021, entitled "Englishman River Water Service (ERWS),2022 - 2026 Financial Plan" be received.
2. THAT the Englishman River Water Service Management Board approve the ERWS 2022 - 2026 Financial Plan, attached as Schedule A.
3. THAT the Englishman River Water Service Management Board recommends the Joint Venturers adopt their respective portions of the ERWS 2022 - 2026 Financial Plan, attached as Schedule B - Parksville and Schedule C - RDN.

BACKGROUND:

The ERWS Water Treatment Plant began delivering potable water to residents in Parksville and Electoral Area E (Nanose Bay) in December 2019. The ERWS was formed in 2011 to secure bulk water supply from the Englishman River for these residents. The ERWS drinking water project included:

- An in-river water supply intake and raw water pumping station designed and located to accommodate how residents and visitors' access and use the Englishman River and to protect aquatic habitat.
- Water treatment plant with a capacity of 16 million litres per day of membrane filtration to comply with new water regulatory treatment standards including ultraviolet light and chlorine disinfection.
- Transmission mains to existing water reservoirs supplying homes and businesses of Parksville and the Nanose Bay Peninsula Water Service Area with potable water.

The total cost of the project was approximately \$41.7 million and was funded with approximately \$12 million from federal and provincial government grants (New Building Canada Fund: Small Communities Fund and Clean Water and Wastewater Fund) and the balance by the City of Parksville and the Regional District of Nanaimo requisitions.

The Island Health operating permit was issued on November 8, 2019, at which time the 21-day function test was successfully completed before provision of water to residents. An opening ceremony was held on January 9, 2020.

Changes to 2022 Budget from the amounts budgeted in the 2022-2026 Financial plan are outlined as attached in Appendix A.

In summary, ERWS Staff have been operating, maintaining, and working through operational challenges and have now identified areas where higher operating and maintenance costs and contracts are needed. As certain equipment moves into its third year of operations, some components will require annual servicing, calibration, and certification that require specialized outside contractor services.

We are also approaching the end of our second year of warranty. While ERWS Staff have been working through some deficiencies with the engineer (Jacobs), suppliers and contractors, we also must position ourselves to be able to make necessary repairs or modifications, when the warranty period has ended.

ERWS Staff have identified several areas to continue to meet regulatory requirements and to improve operational efficiencies, safety, and resiliency. Nine spending packages explaining the larger budget changes are attached to this report as Appendix B. The most significant increases in budget are for Critical Spare Parts, Railway Crossing Infrastructure, Preventative Maintenance Program, Water Supply Resiliency, and Fish Monitoring.

The Management Committee is also requesting funding be approved to start a reserve fund for large operational or capital expenditures. An initial funding amount of \$100,000 each year was included in the 2021 Financial Plan to start in 2022. Upon completion of the asset management program for the plant, the annual reserve contribution will be updated and brought back to the Board.

OPTIONS:

1. Approve the 2022 - 2026 Financial Plan and recommend the Joint Venturers approve their respective portions of the budget and financial plan.
2. Provide the ERWS Management Committee with other direction.

ANALYSIS:

Approval of the Financial Plan will allow staff to move forward right away in 2022 with mandated and other necessary projects to improve operational efficiencies, safety, and resiliency. If changes are proposed by the Board, then it would be helpful for individual budget changes that are acceptable be approved by Board resolution, so all proposed changes are not delayed.

FINANCIAL:

The 2022 - 2026 Financial Plan includes increases from previously approved Financial Plans, particularly in 2022. The budget changes from prior years financial plans are outlined in Appendix A attached to this report. Spending packages for new projects or large budget items are included as Appendix B. The financial plan also includes a contribution to reserves initially set at \$100,000 per year pending completion of the Asset management proposal by staff. The plan includes funding increase for the partners in 2022 from the previous Financial Plan as follows: for Parksville - \$526,700 increase, for RDN - \$185,000 increase.

REFERENCES:

- Englishman River Water Service Joint Venture Agreement - July 1, 2016

Respectfully submitted,

Original signed by B. Woods

B. WOODS
Director of Operations, City of Parksville

Original signed by L. Butterworth

L. BUTTERWORTH
Director of Finance, City of Parksville

ENDORSED BY:

Original signed by K. Kehler

K. KEHLER, MPA
Chief Administrative Officer, City of Parksville
On behalf of the ERWS/ AWS Management Committee

SCHEDULE A 2022-2026 Summary Budget

ENGLISHMAN RIVER WATER SERVICE
2022 - 2026 FINANCIAL PLAN (Summarized)

Englishman River Water Service	2021 Budget	2022 Budget	2023 Budget	2024 Budget	2025 Budget	2026 Budget
REVENUE AND CONTRIBUTIONS						
<u>Joint Venture Requisitions</u>						
Parkville Requisition (74 %)	\$ 1,344,100	\$ 1,588,900	\$ 1,217,300	\$ 1,411,700	\$ 1,158,200	\$ 1,152,300
RDN Requisition (26%)	472,300	558,200	427,700	496,000	406,900	404,800
Total Joint Venture Requisitions	1,816,400	2,147,100	1,645,000	1,907,700	1,565,100	1,557,100
<u>Other Revenue</u>	-	-	-	-	-	-
TOTAL REVENUE AND CONTRIBUTIONS	\$ 1,816,400	\$ 2,147,100	\$ 1,645,000	\$ 1,907,700	\$ 1,565,100	\$ 1,557,100
EXPENDITURES						
<u>Operations</u>						
Administration	269,300	490,900	355,000	303,300	298,400	302,600
Operations	686,100	875,500	890,800	886,300	902,200	918,600
Maintenance	124,000	295,700	201,700	153,100	154,500	155,900
Minor Capital	57,000	210,000	67,500	80,000	50,000	50,000
Transfer to Reserves	-	100,000	100,000	100,000	100,000	100,000
Total Expenses & Reserve Transfers	1,136,400	1,972,100	1,615,000	1,522,700	1,505,100	1,527,100
<u>Capital</u>						
Land Acquisition & Improvements	-	-	-	-	-	-
Equipment	60,000	55,000	30,000	135,000	60,000	30,000
River Intake / Supply Mains	120,000	20,000	-	250,000	-	-
Water Treatment	50,000	-	-	-	-	-
Aquifer Storage and Recovery	-	-	-	-	-	-
Settling Ponds	450,000	100,000	-	-	-	-
Total Capital	680,000	175,000	30,000	385,000	60,000	30,000
TOTAL EXPENDITURES	\$ 1,816,400	\$ 2,147,100	\$ 1,645,000	\$ 1,907,700	\$ 1,565,100	\$ 1,557,100
NET SURPLUS (DEFICIT)	\$ -					

SCHEDULE B Parkville Share of the Costs

ENGLISHMAN RIVER WATER SERVICE					
2022 - 2026 FINANCIAL PLAN					
PARKSVILLE SHARE - 74%					
	2022 Budget	2023 Budget	2024 Budget	2025 Budget	2026 Budget
REVENUE AND CONTRIBUTIONS					
<u>Joint Venture Requisitions</u>					
Parkville Requisition (74 %)	\$ 1,588,900	\$ 1,217,300	\$ 1,411,700	\$ 1,158,200	\$ 1,152,300
<u>Other Revenue</u>					
Grants - Small Communities Fund & CWWF	-	-	-	-	-
Transfer From Reserves	-	-	-	-	-
Total Other Revenue	-	-	-	-	-
TOTAL REVENUE AND CONTRIBUTIONS	\$ 1,588,900	\$ 1,217,300	\$ 1,411,700	\$ 1,158,200	\$ 1,152,300
EXPENDITURES					
<u>Operations</u>					
Administration	363,300	262,700	224,400	220,800	223,900
Operations	647,900	659,200	655,900	667,700	679,800
Maintenance	218,800	149,200	113,300	114,300	115,400
Minor Capital	155,400	50,000	59,200	37,000	37,000
Transfer to Reserves	74,000	74,000	74,000	74,000	74,000
Total Expenses & Reserve Transfers	1,459,400	1,195,100	1,126,800	1,113,800	1,130,100
<u>Capital</u>					
Land Acquisition & Improvements	-	-	-	-	-
Equipment	40,700	22,200	99,900	44,400	22,200
River Intake / Supply Mains	14,800	-	185,000	-	-
Water Treatment	-	-	-	-	-
Aquifer Storage and Recovery	-	-	-	-	-
Settling Ponds	74,000	-	-	-	-
Total Capital	129,500	22,200	284,900	44,400	22,200
TOTAL EXPENDITURES	\$ 1,588,900	\$ 1,217,300	\$ 1,411,700	\$ 1,158,200	\$ 1,152,300
NET SURPLUS (DEFICIT)	\$ -				

Schedule C RDN Share of the Costs

ENGLISHMAN RIVER WATER SERVICE
2022 - 2026 FINANCIAL PLAN
RDN SHARE - 26%

	2022 Budget	2023 Budget	2024 Budget	2025 Budget	2026 Budget
REVENUE AND CONTRIBUTIONS					
<u>Joint Venture Requisitions</u>					
RDN Requisition (26%)	\$ 558,200	\$ 427,700	\$ 496,000	\$ 406,900	\$ 404,800
<u>Other Revenue</u>					
Grants - Small Communities Fund & CWWF	-	-	-	-	-
Transfer From Reserves	-	-	-	-	-
Total Other Revenue	-	-	-	-	-
TOTAL REVENUE AND CONTRIBUTIONS	\$ 558,200	\$ 427,700	\$ 496,000	\$ 406,900	\$ 404,800
EXPENDITURES					
<u>Operations</u>					
Administration	127,600	92,300	78,900	77,600	78,700
Operations	227,600	231,600	230,400	234,500	238,800
Maintenance	76,900	52,400	39,800	40,200	40,500
Minor Capital	54,600	17,600	20,800	13,000	13,000
Transfer to Reserves	26,000	26,000	26,000	26,000	26,000
Total Expenses & Reserve Transfers	512,700	419,900	395,900	391,300	397,000
<u>Capital</u>					
Land Acquisition & Improvements	-	-	-	-	-
Equipment	14,300	7,800	35,100	15,600	7,800
River Intake / Supply Mains	5,200	-	65,000	-	-
Water Treatment	-	-	-	-	-
Aquifer Storage and Recovery	-	-	-	-	-
Settling Ponds	26,000	-	-	-	-
Total Capital	45,500	7,800	100,100	15,600	7,800
TOTAL EXPENDITURES	\$ 558,200	\$ 427,700	\$ 496,000	\$ 406,900	\$ 404,800
NET SURPLUS (DEFICIT)	\$ -				

APPENDIX A Changes from Prior Approved Budget

**Englishman River Water Service
2022-2026 Financial Plan**

	2022	2023	2024	2025	2026	
Spending Packages (Items in previous Financial Plan)						
Administration - Environmental monitoring	43,500	43,500	43,500	43,500	43,500	SP 2021-12 - Increases shown in SP ERWS 2022-08 below
Capital changes (Items in previous Financial Plan)						
Settling Ponds/Geo bags	100,000					Move estimated unspent budget from 2021 to 2022 Defer project-Reassess after process audit complete
River Intake - Weir Screens	(250,000)		250,000			
2022 Spending Packages (New budget items)						
<u>Operating</u>						
Administration - Environmental monitoring	55,900	34,200	46,100	47,700	38,200	Spending Pkg ERWS 2022-08 - Incr from 2021
Administration - Technical Support	50,000	50,000				Spending Pkg ERWS 2022-01
Administration - Water supply resiliency plan	75,000					Spending Pkg ERWS 2022-07
Operations - SCADA Monitoring/Programming	50,000	50,000	30,000	30,000	30,000	Spending Pkg ERWS 2022-02
Maintenance - Critical spare parts	105,000					Spending Pkg ERWS 2022-03
Maintenance - Parts & Materials		26,000	26,000	26,000	26,000	SP 2022-03 - Increase to ongoing repair parts
Maintenance - Preventive Mtce program	100,000	100,000	50,000	50,000	50,000	Spending Pkg ERWS 2022-05
Minor Capital - Railway crossing	110,000					Spending Pkg ERWS 2022-04
Minor Capital - Network Switches/Laptop		17,500				Spending Pkg ERWS 2022-09
<u>Capital</u>						
River Intake - Security fencing	20,000					Spending Pkg ERWS 2022-06
Equipment - Servers & Firewall			70,000	30,000		Spending Pkg ERWS 2022-09

	2022	2023	2024	2025	2026	
Other Budget Changes from Prior Budget						
<u>Operating</u>						
Administration - Salary/benefit allocation	(14,300)	(14,300)	(14,300)	(14,300)	(14,300)	Remove supervisor wage allocation
Administration - Parksville Admin Charge	10,000	10,000	10,000	10,000	10,000	For Budget & Accounting services
Administration - Salary/benefit allocation	68,900	68,900	68,900	68,900	68,900	Add manager wage charge
Administration - Consulting	45,000					Plant Design Audit-continue 2021 project
Administration - Legal	10,000	15,000				Contract arbitrations increase
Administration - Licenses	3,500	3,500	3,500	3,500	3,500	Water extraction license moved from AWS
Operations - Wages	68,000	68,000	68,000	68,000	68,000	Additional budget needed based on 2021 experience
Operators - Contract Contingency	(5,000)	(5,000)	(5,000)	(5,000)	(5,000)	Contingency removed
Operators - Security	3,000	3,000	3,000	3,000	3,000	Plant security checks added
Operations - Parts & Materials	51,700	51,700	51,700	51,700	51,700	Additional budget needed based on 2021 experience
Operators - Small tools, equipment, furniture	5,500	5,500	5,500	5,500	5,500	Additional budget needed based on 2021 experience
Operators - Gas & Oil	2,000	2,000	2,000	2,000	2,000	Share of Genset Diesel increased
Operators - Hydro	(5,400)	(5,400)	(5,400)	(5,400)	(5,400)	Held at 2021 level-Closer to actual cost
Maintenance - Wages	18,000	18,000	18,000	18,000	18,000	Staff are doing more maintenance than originally anticipated
Maintenance - Equipment repairs	5,000	5,000	5,000	5,000	5,000	Repair contingency - no history for this yet
Maintenance - Small tools & equipment	5,000	5,000	5,000	5,000	5,000	Build an inventory of tools for plant maintenance
Maintenance - Geobags	16,000					Establish initial Geobag replacement inventory
Minor Capital - Sand Separators	(20,000)					Budget not required
<u>Capital</u>						
Equipment - Turbidity Meter	25,000					For fish monitoring program
For Info Only - Items in previous budget						
Minor Capital - Contingency	50,000	50,000	50,000	50,000	50,000	
Minor Capital - Water Storage Options	50,000					
Transfer to Reserves	100,000	100,000	100,000	100,000	100,000	
Total changes from Previous plan (smaller changes are not shown above)	707,800	508,600	688,000	399,600	360,100	

APPENDIX B Spending Packages

Spending Package **ERWS 2022-01 - Professional Engr. Services, Technical Support**
 Budget Year **2022**
 Acct. Reference 28-7310

Explanation/Justification/Impact of not Funding
 Operations Department has temporarily retained various specialized consultants including an independent chemical engineer, specialized in process and SCADA, to work closely with the operators to diagnose, correct and optimize the system where necessary to suit operational needs. This arrangement has proven to be effective in expediting the works in a very cost-efficient manner. It is proposed that funding be set aside for an as and when needed basis to assist operators in auditing and optimizing the process system.

The project is anticipated to continue annually on an as and when needed basis to optimizing the treatment process. This will be conducted strategically and as a result, reduce resource usages.

Retaining temporary expert(s) on an as needed basis has added value and vision and improved our daily workflow.

Without options for specialized expert consultation, the plant is vulnerable to increased costs associated with sourcing and requiring specific expertise on an emergency basis. Optimization is essential for future plant growth.

Strategic Plan Theme / Decision Points

Cost /Benefit Analysis
 Operations Department will lead the project and depending on the tasks and levels of technical difficulty will reach out to the appropriate personnel (external resources, engineer) to assist Operations with the works. The estimated cost for the professional engineering services is \$50K annually.

Operating Budget Details

Object Code	Description	2022 Budget
7310 - Administration		
331 - Consulting	Professional Engr. Services - Technical Support	50,000
Total		50,000

Spending Package
 Budget Year
 Acct. Reference

ERWS 2022-02 - SCADA Monitoring & Programing Services

2022
 28-7311

Explanation/Justification/Impact of not Funding

The construction of the ERWS water treatment plant and pump station facilities had included many control systems to ensure the plant operates safely (more automatic). With that, a telemetry contractor is needed to maintain, monitor, and upkeep with the technology updates.

Providing resources to SCADA is critical not only for ease of operation in analyzing water quality and quantity, but also to optimize performance. Also, trending historical and real-time data allows crews to detect leaks and failures quicker.

Not providing resources to SCADA can lead to not receiving alerts and/or delay in finding faulty devices. Regulatory analyzers are connected to the SCADA system and are required for our permit.

Strategic Plan Theme / Decision Points

Clean drinking water is a high priority objective and is of paramount importance to the City. SCADA is a critical component to this service delivery.

Cost /Benefit Analysis

ERWS Operations Dept. has retained a local telemetry contractor on an as and when needed basis as internal resources are limited with this skill set (very specialized work). As this is a new plant and will require some learning and adjustments to suit to the operational needs, the estimated budget, yearly for the first two year (2022 and 2023), is \$50K.

After the first two years ongoing support on an as needed basis is estimated at ~30K.

Operating Budget Details

Object Code	Description	2022 Budget
7311 - ERWS Operations		
330 - Contracts	Scada Monitoring & Programming Services	50,000
Total		50,000
		2023 Budget
	Scada Monitoring & Programming Services	50,000
Total		50,000
		2024-26 Budget
	Scada Ongoing Support	30,000/yr

Spending Package

ERWS 2022-03 - Critical Spare Parts

Budget Year

2022

Acct. Reference

28-7320

Explanation/Justification/Impact of not Funding

Obtaining a practical spare part inventory is essential to plant operation. It can mitigate downtime by having spares available for replacement right away and prevent potential shut down of water service. Staff have reviewed and identified the critical spare parts required from the consultant list. Regulatory requirements, operating strategy, inventory, shelf life, and lead times were a few of the factors when developing the critical spare part list.

Inadequate inventory often leads to downtime and at which, if necessary, manual operation will be carried out to prevent service interruption. This will result in high costs for staff monitoring as well as higher emergency service delivery of parts and services.

Taking no action will leave our water service vulnerable to sourcing of critical parts and ultimately a potential disruption of water supply.

Strategic Plan Theme / Decision Points

The project is initiated for the purpose of building redundancy and resiliency to the water system. This approach aligns with the best management practices.

The project supports healthcare and public safety priorities in maintaining and providing safe drinking water to our communities.

To date, minimal spare parts have been purchased as the facility is covered under warranty. The warranty period expires the end of this year, 2021. There are some functions without redundancy and obtaining spare parts for those components is critical and includes items such as controls/communication devices (MCC) and analyzers. This is not only required to meet regulations but also keep the plant functional.

An inventory list will be created to track and replace the parts annually. Management of spare parts includes the collection and analysis of data and the ability to look at the entire scope of operation to locate and solve important underlying problems that may surface in the long run. In relation to collecting and analyzing data, engineer and operators look out for patterns of failure that can reveal problems that are not clearly visible and potentially replacing equipment that have a longer lifespan.

Cost /Benefit Analysis

The Operations Department will lead the project and pre-purchase the parts directly from authorized sales suppliers to reduce markups. Cabinets and storage shelves will be purchased and installed at the plant to store the items.

Internal resources (Facility Dept.) will assemble the cabinet and shelving units. Once the project is established, Plant Operators will manage the inventory.

The project budget is \$140K spread over 2 years (2021-\$35K and 2022-\$105K) and \$30K thereafter to restock the inventory.

Operating Budget Details

Object Code	Description	2022 Budget
7320 - Maintenance - WTP		
450 - Parts, Materials and Supplies	Critical Spare Parts	105,000
Total		105,000

Spending Package

ERWS 2022-04 - Railway Crossing & SRW

Budget Year

2022

Acct. Reference

28-7350

Explanation/Justification/Impact of not Funding

A portion of the ERWS water infrastructures was constructed within the Island Corridor Foundation (ICF) right of way and during the planning stage, consultation had been conducted with ICF representatives. The ICF's board had approved the concept in principle and the installation proceeded. However, formal applications are required as part of the SRW agreement.

In addition, a private railway crossing is required at the Public Works yard to access the intake structure.

This project will consist of the following items:

- Preparation and submission of road, underground utility and wire applications and drawings for the purpose of retaining SRW and road crossing approval.
- Preparation of design drawings for the road railway crossing at Public Works Yard. Construction is to follow thereafter.

The works outlined in this project are not new initiatives. It is part of the original project scopes and required to be carried out for project closeout. The project is required to meet the safety and for access to protect the water infrastructure.

Taking no action will pose many challenges for Operations staff such as limiting our ability to access and provide adequate maintenance to the infrastructures which can lead to long term risk and reliability in maintaining service levels. Ultimately, no action will result in lack of water supply for the citizens of Parksville and Nanoose.

Strategic Plan Theme / Decision Points

The installation of the watermain, electrical and instrumentation conduit had been installed and the next step is to create legal easements to grant the right to enter to perform work on the utilities. Through the easement, the infrastructures will also be protected from others working around our underground utilities. Applications and drawings will be required to support this process with the ICF.

Moreover, a road crossing at the Public Works Yard is required to enable maintenance vehicles to access the intake structure. This crossing will require application and drawing submissions.

This project supports Council public safety priority in ensuring all the services and agreements are in place to protect and secure the water system.

Cost /Benefit Analysis

Operations Department will lead the project in preparing and submitting the applications and where necessary, will retain an external consultant to prepare additional drawings. Below is a summary of the estimated budget required for the project. The estimated cost is \$110K.

- Application cost, \$20K
- Consultant fees, \$20K
- Construction of the railway crossing, \$70K

Operating Budget Details

Object Code	Description	2022 Budget
7350 - Minor Capital		
330 - Contracts	Railway Crossing & SRW Agreement	90,000
331 - Consulting	Railway Crossing & SRW Agreement	20,000
Total		110,000

Spending Package
 Budget Year
 Acct. Reference

ERWS 2022-05 - Preventive Maintenance Program
2022
 28-7320

Explanation/Justification/Impact of not Funding

A preventive maintenance program is necessary for the ERWS facilities. The program will focus mainly on the mechanical, hvac, electrical, process, instrumentation and controls equipment for the water treatment plant and raw water pump station facilities. The objective is to extend and improve the performance, safety and life of the equipment and avoid any unplanned maintenance activities, emergency repairs and service disruptions.

The program is anticipated to start 2022 and will continue annually thereafter.

The benefits of a properly operated preventive maintenance program are:

- Increasing life expectancy of the equipment, thereby eliminating premature replacement of machinery and equipment (asset management plan).
- Establishing the baseline of the equipment which will help with monitoring, operating, and repairing schedule.
- Decreasing equipment downtime and the number of emergency repairs which will improve safety and quality conditions for staff, reduce costs and improve efficiencies.

Preventive maintenance can be carried out at predetermined intervals aimed at reducing the failure risk or performance decline of the equipment. The maintenance cycles are planned according to the need to take the device out of service. This option is more costly at the initial stage but will offset in the long run by prolong the life of the assets. This approach aligns with the provincial and federal asset management framework for funding/grant purposes.

Not completing preventative maintenance could result in a decreased asset lifecycle, costly one-off repairs, service disruption, additional staff resources, and water service interruptions.

Strategic Plan Theme / Decision Points

The objective of a preventive maintenance program is to extend the life of the equipment by providing adequate service and establish a replacement strategy (asset management plan).

Assist with planning for replacement reserve funding. The project is initiated to maintain the service level and minimize water service disruption for the community. The project supports Council healthcare and public safety priorities in providing safe drinking water to our community.

Cost /Benefit Analysis

ERWS Operations will lead the project and will draw resources and expertise where required including operators (staff), service contractors and suppliers. A request for proposal will be issued to retain a general service contractor to prepare the program and service the equipment at the same time. Plant's operators will work alongside with the service contractors to see what are required (training) and determine what service will be completed in-house the following year.

It will be phased in multiple years for ease of planning and budgeting. The estimated cost for establishing the program is \$200K and will be distributed over two years evenly. \$50K per year thereafter to continue with major maintenance works that required certified technicians to service the equipment.

Operating Budget Details

Object Code	Description	2022 Budget
7320 - ERWS Maintenance		
330 - Contracts	Preventive Maintenance Program	100,000
Total		50,000
		2023 Budget

	Preventive Maintenance Program	100,000
Total		50,000
		2024-26
		Budget
	Preventive Mtce Ongoing	50,000/yr

ERWS 2022-06 - Intake Structure, Safety Fencing - Capital Project

Spending Package

Budget Year

2022

Acct. Reference

28-9751

Explanation/Justification/Impact of not Funding

The Englishman River intake structure is located along the river off of a regularly use trail network, Top Bridge Regional Trail. Access to the intake is through a locked gate then a set of concrete staircases to the bottom landing which is the top of the concrete intake chamber. There are no railings around the intake structure protecting from falling into the river. The air burst system comes on periodically. Therefore, the public is not permitted to access the area.

At the top of the slope, there are a few chain link fence panels that connect and extent beyond the gate but is inadequate to deter the public from going around the fence using the concrete staircase to access the river. Signs had installed but do not discourage those from entering.

The extension of the chain link fence is needed for security and safety purposes. This will prevent unwanted public and animals accessing the intake structure.

It also marks the boundaries between private and public use areas. Once implemented, it will protect and provide safe working environment for workers and mitigate risk and liability.

Not implementing the project may run the risk of 1) animals entering workspace; 2) having an individual from the public falling into the river during high storm and current events; 3) leaving our infrastructure vulnerable to vandalism.

Strategic Plan Theme / Decision Points

The project is required not only to provide security for the facility but mark the boundaries between private and public access area. This will mitigate risk and liability by preventing public access.

Cost /Benefit Analysis

Operations Department will lead the project in contacting the contractors for quotation and follow through with the installation. The estimated cost for the project is \$20,000 consisting of approximately 75m of chain link fence and associated posts. Same make and model as the existing fence will be used to maintain the aesthetic look.

Capital Budget Details

Object Code	Description	2022 Budget
9751 - River Intake		
330 - Contracts	ERWS Intake Structure, Safety Fencing	20,000
Total		20,000

Spending Package

ERWS 2022-07 - Water Supply Resilience Planning Study

Budget Year

2022

Acct. Reference

28-7310

Explanation/Justification/Impact of not Funding

As a water supplier, we strive to provide the best and safest drinking water to our community. A critical component in providing safe drinking water is having contingency plans when unexpected emergencies arise. Also, as we move into hotter temperatures and longer periods without rain we need to consider water education and conservation.

A study is needed to review all the possible water sources and resources that can be accessible and required during an emergency as well establishing all the necessary water licensing permits pre-emergency.

The project is to develop an emergency water supply resiliency and response plan within an overall emergency management framework. The objective is to provide alternatives to supply, respond and recover from various types of emergency events as quickly and efficiently as possible.

The project is anticipated to start in 2022 and complete in 2023.

Taking no action will limit service delivery and make the system less resilient in emergency and emergent situations.

Strategic Plan Theme / Decision Points

The project is identified as a corporate priority in meeting the emergency management framework.

The project supports priority in ensuring healthcare, public safety, and properties are managed and protected.

Cost /Benefit Analysis

The Operations Department will lead the project either to complete the project in-house or retain the professional services via the request for proposal process. The project lead will work closely with the internal and external stakeholders (Operations Staff, Emergency Management Coordinators, and RDN) to ensure the plan aligns with the overall emergency management framework and carry out all the necessary training and exercises required in preparation for emergencies pertaining to water supply system.

The financial resources required are \$75,000.

Operating Budget Details

Object Code	Description	2022 Budget
7310 - Administration		
331 - Consulting	Water Supply Resiliency Planning Study	75,000
Total		75,000

Spending Package **ERWS 2022-08 - Environmental Monitoring Fish Habitat Offsetting Plan**

Budget Year **2022**

Acct. Reference 28-7310

Explanation/Justification/Impact of not Funding
 Environmental Monitoring of the Fish Habitat Offsetting Plan is a requirement of the Department of Fisheries and Oceans concerning our Authorization to construct and implement the Englishman River intake structure. Required elements are the weighted usable area estimates on certain salmonid fishes, Distribution and relative abundance of fish species and life stages through electrofishing and snorkeling surveys Temperature, turbidity and discharge effects of ramping rates on fish stranding incidence of fish being impinged on intake screens The monitoring must be completed by a qualified professional, such as professional registered biologist. The authorization entails monitoring for the first five years in operations.

Strategic Plan Theme / Decision Points

Cost /Benefit Analysis
 The costs identified from the RFP process came in higher than originally anticipated, so charges adjusted. This is a mandatory requirement and must be completed.

Operating Budget Details

Object Code	Description	2022 Budget
7310 - Administration		
330 - Contracts	Environmental Monitoring Fish Habitat Offsetting Plan	91,400
330 - Contracts	Turbidity Meter Rental	8,000
Total		99,400
		2023 Budget
330 - Contracts	Environmental Monitoring Fish Habitat Offsetting Plan	77,700
		2024 Budget
330 - Contracts	Environmental Monitoring Fish Habitat Offsetting Plan	89,600
		2025 Budget
330 - Contracts	Environmental Monitoring Fish Habitat Offsetting Plan	81,200
		2026 Budget
330 - Contracts	Environmental Monitoring Fish Habitat Offsetting Plan	81,700

ERWS 2022-09 - IT Servers, Network Switches & Firewall Renewal

Spending Package

Budget Year

2022

Acct. Reference

28-9749

Explanation/Justification/Impact of not Funding

The treatment plant IT system consists of 2 SCADA servers, 1 historian server, 1 access control server, 1 video server, 1 backup server, firewall, and 3 network switches. The assets life expectancy is between 5 to 6 years and renewal are required regularly to upkeep with technology and before they fail.

The City had purchased a 3-year extended warranty for the servers (2022-2024) in addition to the plant warranty. A 5-year extended warranty was also purchased for the firewall (2022-2026).

The servers, network switches, and firewall are a critical function not only for the plant control system but also for record keeping to meet regulatory requirements. Maintaining and replacing the assets are important.

Strategic Plan Theme / Decision Points

Cost /Benefit Analysis

An analysis had been completed by our IT department and recommended the following replacement cycle:
 2023: \$17,500 for removal and replacement of network switches and laptop
 2024: \$70,000 for removal and replacement of servers and firewall
 2025: \$30,000 for removal and replacement of video and control servers

Operating Budget Details

Object Code	Position	Description	<u>2023 Budget</u>
7350 - Minor Capital			
432 - Computer hardware		Network Switches and Laptop	17,500
Total Minor Capital			17,500

Capital Budget Details

Object Code	Position	Description	<u>2024-25 Budget</u>
432 - Computer hardware	2024 Budget	IT Servers and Firewall Renewal	70,000
432 - Computer hardware	2025 Budget	Replacement of video and control servers	30,000
Total Capital Equipment			100,000