



ENGLISHMAN RIVER WATER SERVICE JOINT VENTURE
MANAGEMENT BOARD REGULAR MEETING
AGENDA

Thursday, November 2, 2017

9:30 A.M.

City of Parksville Forum

100 Jensen Avenue

Pages

1. CALL TO ORDER
2. APPROVAL OF THE AGENDA
3. ADOPTION OF MINUTES
 - 3.1 Englishman River Water Service Management Board Meeting - May 25, 2017 3
That the minutes of the Englishman River Water Service Management Board meeting held May 25, 2017 be adopted.
4. PRESENTATION
 - 4.1 Project Update
5. CORRESPONDENCE
 - 5.1 City of Parksville Council Presentation re, Englishman River Water Service Water Storage/Project Update dated October 16, 2017 5

6. REPORTS

6.1 ERWS Revised 2018 - 2022 Financial Plan

64

1. THAT the report from the Englishman River Water Service Management Committee, dated October 25, 2017, entitled ERWS 2018 - 2022 Financial Plan be received.
2. THAT the Englishman River Water Service Management Board accept the 2018 – 2022 Financial Plan as outlined in Table 1 attached to the October 25, 2017 report.
3. THAT the Englishman River Water Service Management Board recommend the Joint Ventures adopt their portion of the 2018 – 2022 Financial Plan as outlined in Table 2 attached to the October 25, 2017 report.

7. NEW BUSINESS

8. ADJOURNMENT



**MINUTES OF THE REGULAR MEETING OF THE
ENGLISHMAN RIVER WATER SERVICE (ERWS) MANAGEMENT BOARD**

**HELD ON THURSDAY, MAY 25, 2017 AT 9:30AM
City of Parksville Forum
100 Jensen Avenue**

Present:	Director J. Stanhope, Chair Director B. Rogers M. Lefebvre	Regional District of Nanaimo Regional District of Nanaimo City of Parksville
Also Present:	M. Squire L. Butterworth R. Alexander G. St. Pierre Director B. Veenhof R. Graves	City of Parksville City of Parksville Regional District of Nanaimo Regional District of Nanaimo Regional District of Nanaimo Recording Secretary

CALL TO ORDER

The Chair called the meeting to order at 9:31 am and respectfully acknowledged the Coast Salish First Nations on whose traditional territory the meeting took place.

APPROVAL OF THE AGENDA

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

CARRIED UNANIMOUSLY

MINUTES

It was moved and seconded that the minutes of the regular meeting of the Englishman River Water Service Management Board held May 3, 2017 be adopted.

CARRIED UNANIMOUSLY

IN CAMERA

It was moved and seconded that pursuant to sections 90 (1) (j) of the Community Charter the Board proceeded to an In Cameras Meeting for discussions related to third-part business interests.

CARRIED UNANIMOUSLY

ADJOURNMENT

It was moved and seconded that this meeting be adjourned.

CARRIED UNANIMOUSLY



Water Storage / Project Update: Englishman River Water Service

Prepared for:
City of Parksville Council
October 16, 2017

Prepared By: Mike Squire, ASCT
Manager of Water Resources



An environmentally sensitive use of water to improve fish habitat and domestic water supply.



Drinking water is the public's biggest natural resource and ensures our best security for the future.



Vision Statement:

*We aspire to be the City of choice for ourselves and **future generations** in a **clean, safe, friendly, economically viable** and **sustainable environment***

Strategic Plan:

Primary Theme:

Maintain or Enhance
Quality of Life:
(Health & Safety).



To successfully accomplish these visions requires careful stewardship and planning of both the surface water and groundwater sources upon which ERWS depends.

Future Water Supply:

Objectives

- Publicly acceptable
- Affordable
- Low impact / blends into environment
- Simple to operate
- Robust and sustainable
- Enable public education
- Public Engagement



Actions

- Improve Domestic Water Supply and Distribution
- Meet Current Standards
- Clean / Safe
- Provide Supply for Future Generations
- Economically Viable (Phased Approach)
- Improve Fish Habitat

Current Water Infrastructure Problems

The existing Englishman River water intake:

- Aging Infrastructure - Over 40 years old
- Posses a Risk given the current location
- Requires Frequent In-Stream Work (Fisheries Authorization)
- Certain times of the year, only one river pump can remain in operation .
Emergency in Year 2015.
- Will not be able to run during clay bank collapse

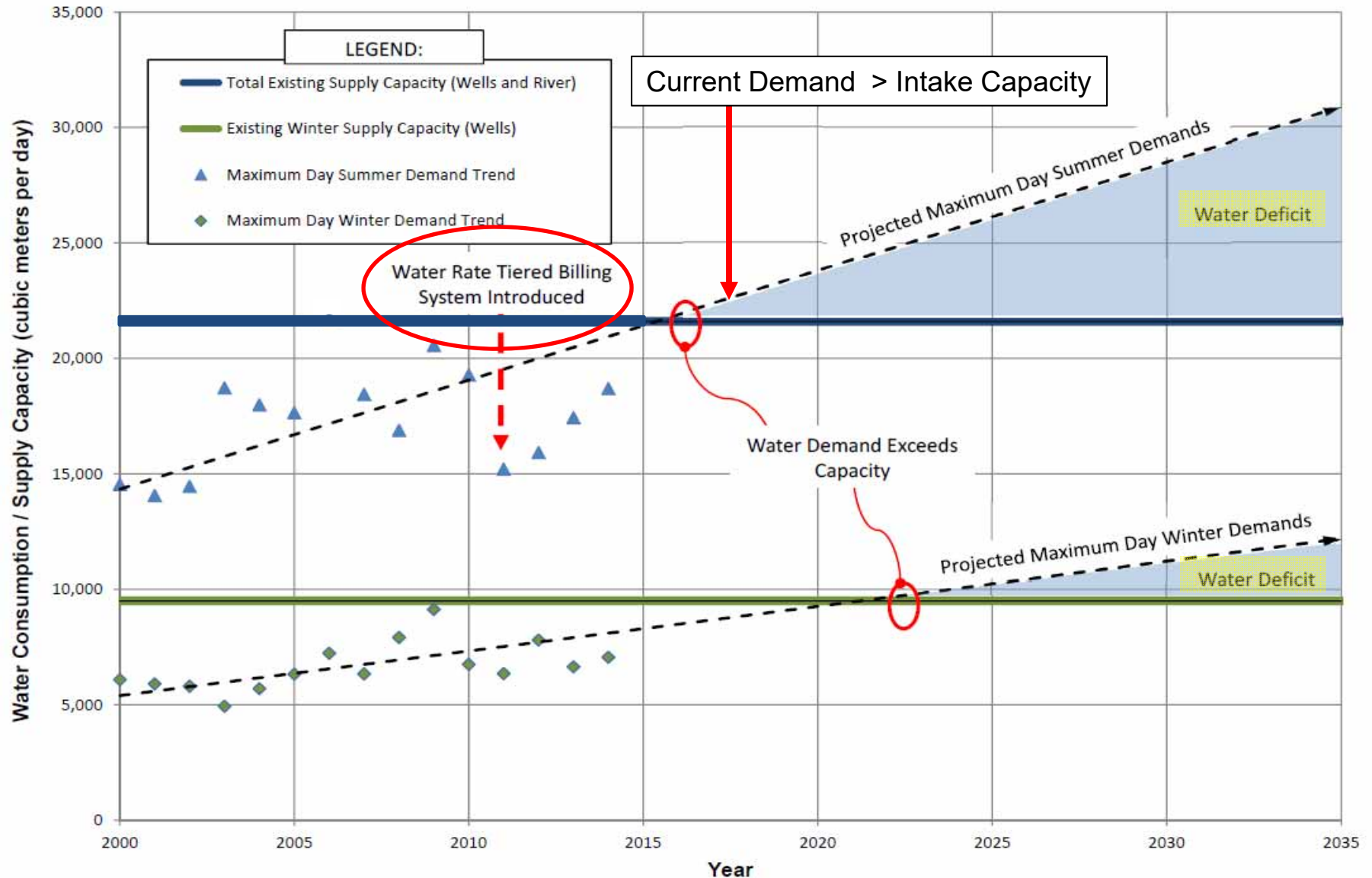
Best Water Management Tool:

Results in **Watering Restrictions**



Current Water Infrastructure Problems

Under Capacity Englishman River Water Service - Water Demand Projections



How do we plan for water?

1. Current Demands
2. Growth Projections (OCP and RGS)
3. Current Yield vs. Req'd. (Phased Approach)
4. Demand Management
(avoid overbuilding – capital deferral)
5. Sound Technical Data and Applied Science



Residential Use - Water Demands.....

Total Residential
Daily Use
(liters per capita per day)

National Average

274



British Columbia Average

353



Parksville Average (2002 - 2006)

375



Parksville Average (last 5 years)

319

Best Practices for Demand Management:

- Full Metering (Bulk Water and Individual Metering) – Full Accountability = Water Audit
- Tired Billing Rate (more water use = more you pay)
- Staged Watering Restrictions

Water Survey Results: Most respondents (93%) are committed to reducing water use.

Source: Environment Canada – 2011 Municipal Water Report

Demand Management

City Irrigation Use

- We have an integrated centralized control over the majority of our irrigation systems.
- Our system is connected to a central computer that can monitor environmental conditions and adjust water amount or frequency automatically
- Rain sensors have been installed wherever possible

Year	City Wide Irrigation Use (US Gal)
2014	25,236,000
2015	24,660,000
2016	↓ 24,703,000
2017	22,405,000

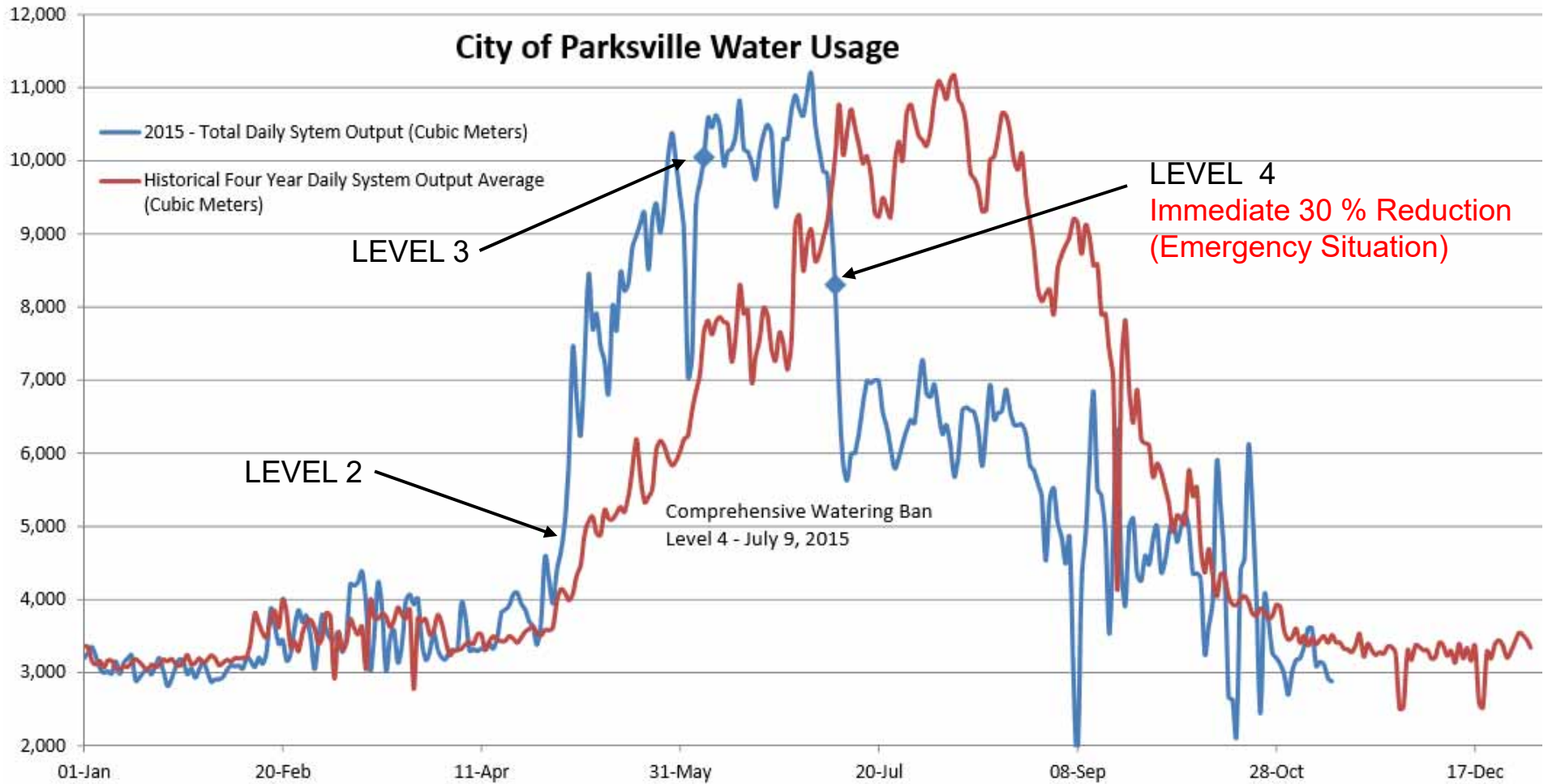
2017 - Record Dry Summer



This year, the use of Wetting Agent helped save over **2.8 Million US Gallons** saved this year on the three main playing fields.....

Demand Management.....

How Watering Restrictions Work



**DRINKING WATER
WATERSHED
PROTECTION**

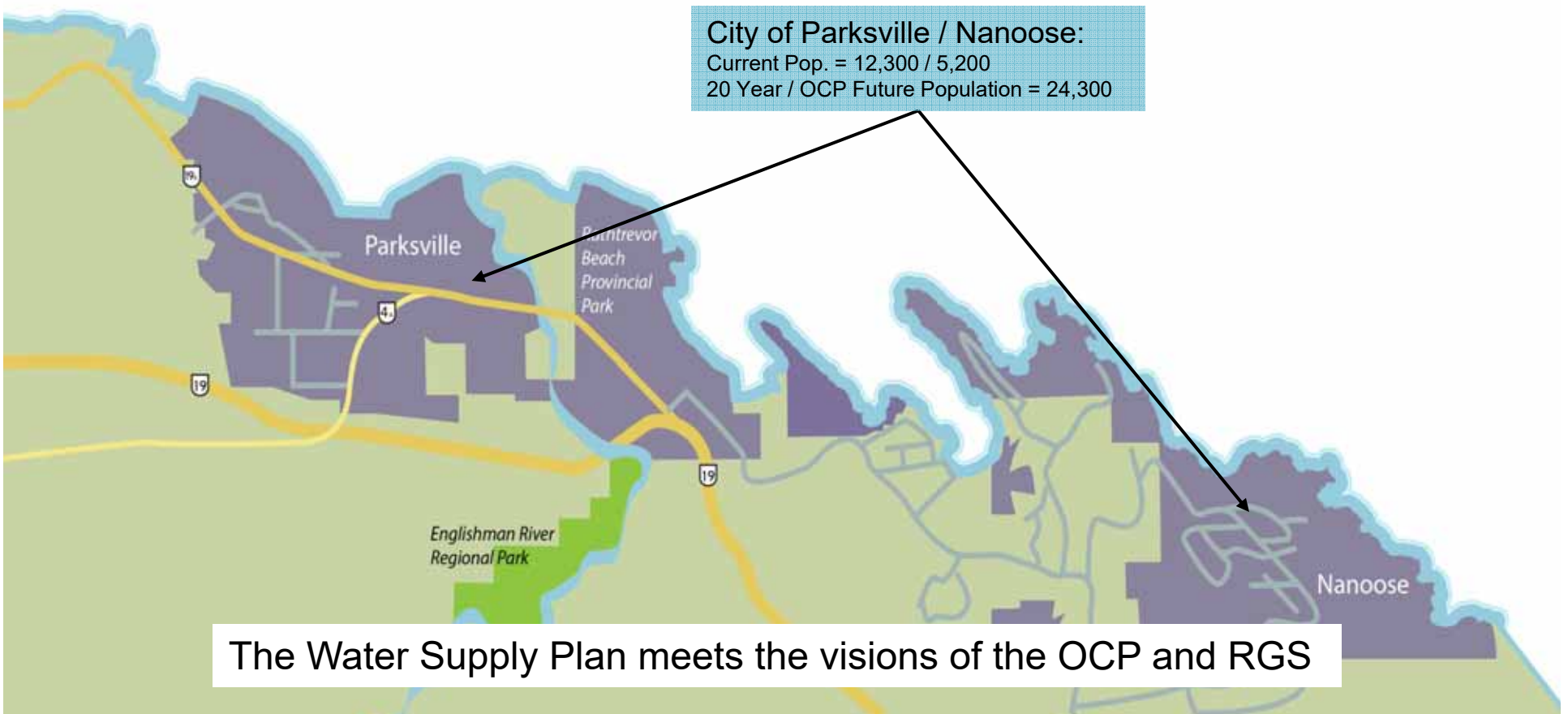


Growth Projections

We are building the required infrastructure to meet the current visions of:

- Official Community Plan (OCP)
- Regional Growth Strategy (RGS)

Both plans (OCP and RGS) envision a 30 % increase from the 2011 Census population of the next 20 years.



Current Yield vs. Required Surface Water Supply

Forecast Year	Population	Un-factored Demands (MLD)	Factored Demands (MLD)	Groundwater Yields (MLD)	Required Surface Water Supply (MLD)
CURRENT / 2018	17,500	22.9	28	9.5	18.5
2035	24,300	27.8	33.9	9.5	24.4

Population Data from Census information, OCP and Regional Growth Strategy

Un-factored Demands from historical **maximum worst case** consumption – Nanoose / Parksville (**peak day 2009**)
 Not current day demands.....
 Assuming: **No Demand Management**

Factored Demands (**1.25 Parksville & 1.15 Nanoose**) factor of safety to account for uncertainties in:

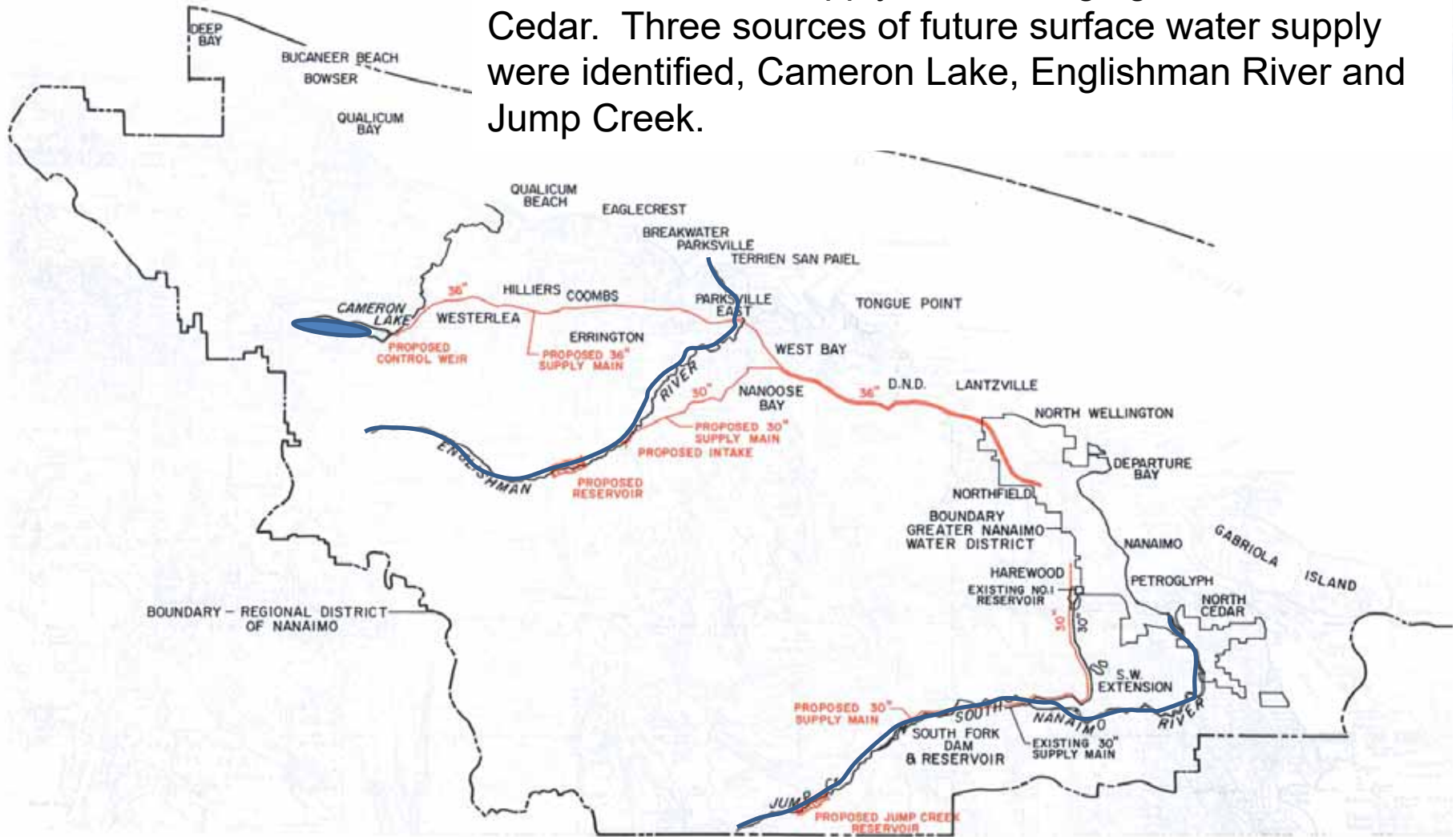
- climate change,
- water use changes,
- growth projections
- type of system (mechanical)

Future Groundwater Yields were assumed to be **70 % of existing capacity** to account for any unknowns

Source: Final Pre-Design Report Prepared By CH2M Hill

Regional Water Supply Storage..... HISTORY

The first Regional Water Study commenced in 1972 By AESL incorporated all the Regional District of Nanaimo's water supply needs ranging from Bowser to Cedar. Three sources of future surface water supply were identified, Cameron Lake, Englishman River and Jump Creek.



Source: Regional Water Study – AESL engineering 1972

Regional Water Supply HISTORY

- Cameron Lake ruled out

The Province wanted us to look at a regional approach and the creation of a joint venture partnership to look towards the Englishman River as a single source of surface water supply for the regional as a “win –win” for both future domestic potable water supply and fisheries enhancements.

- City of Nanaimo, more feasible to develop their own surface water supply system

Regional Water Supply Storage..... HISTORY

A comprehensive water supply study was completed in 1988 by Chatwin Engineering. Looked at six sites for water impoundment:

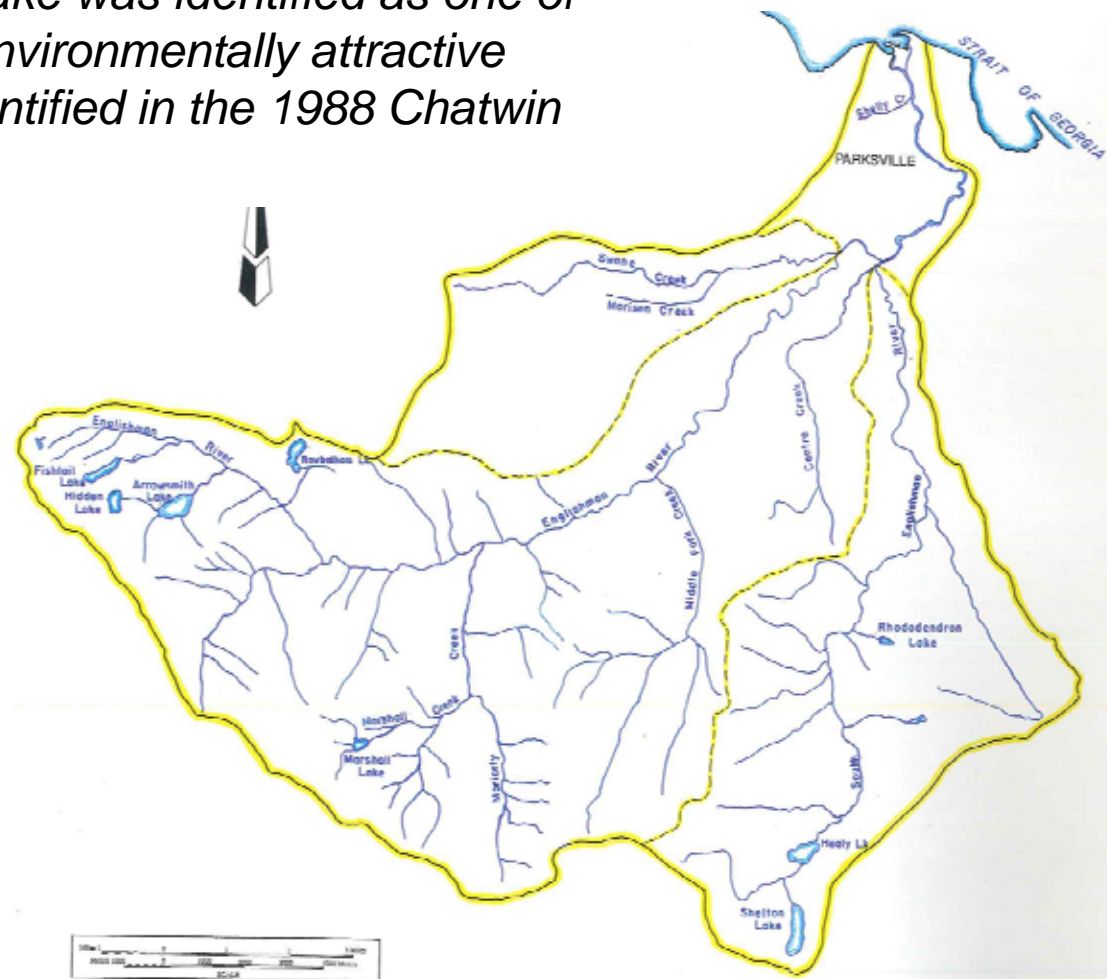
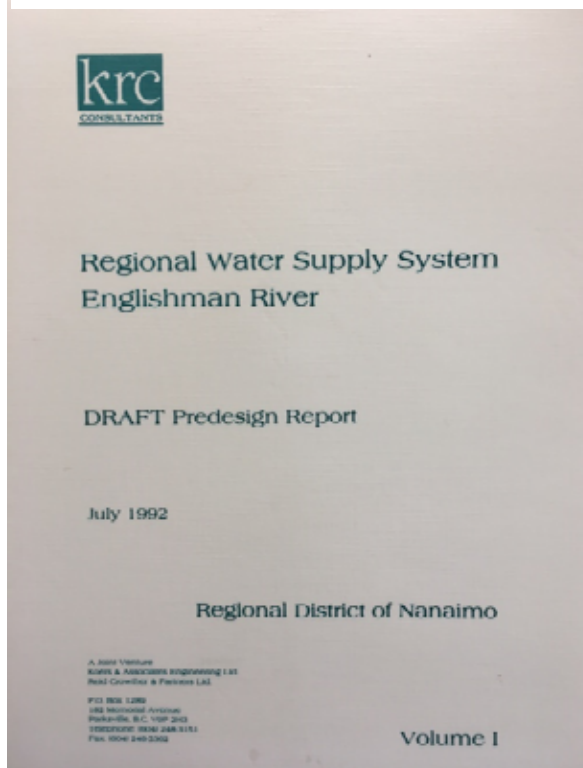
1. South Englishman River
2. OK Mountain Creek
3. Healy Lake
4. Arrowsmith Lake
5. Englishman River above Moriarty Creek
6. Englishman River below Moriarty Creek

Review consisted of forestry considerations, land, geotechnical, hydrologic and environmental considerations.

Regional Water Supply Storage..... HISTORY

Regional Water Supply System Englishman River -1992 prepared by Koers and Associates / Reid Crowther and Partners concluded:

A dam on the Arrowsmith Lake was identified as one of the more economical and environmentally attractive options of all six options identified in the 1988 Chatwin Report.

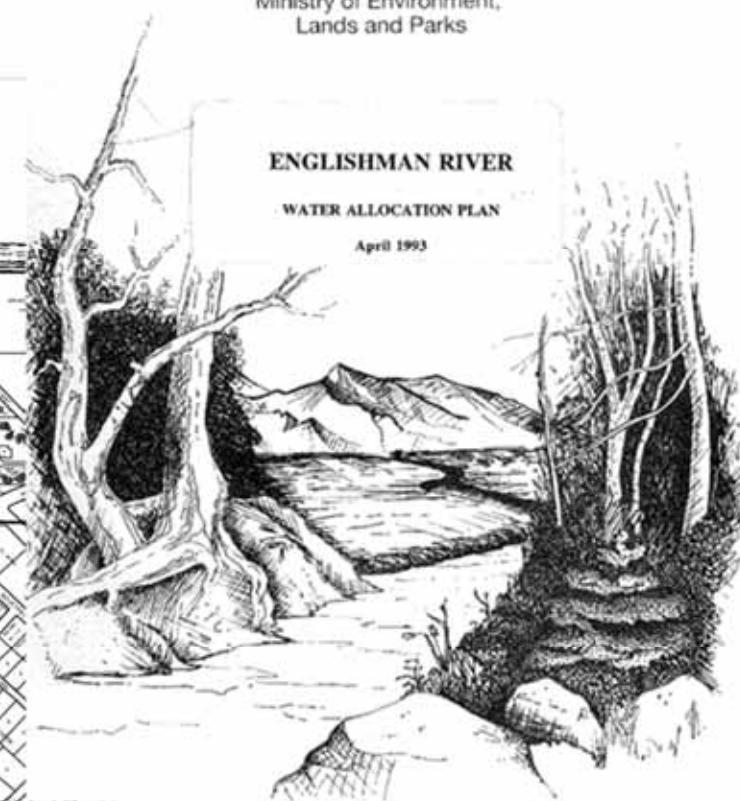
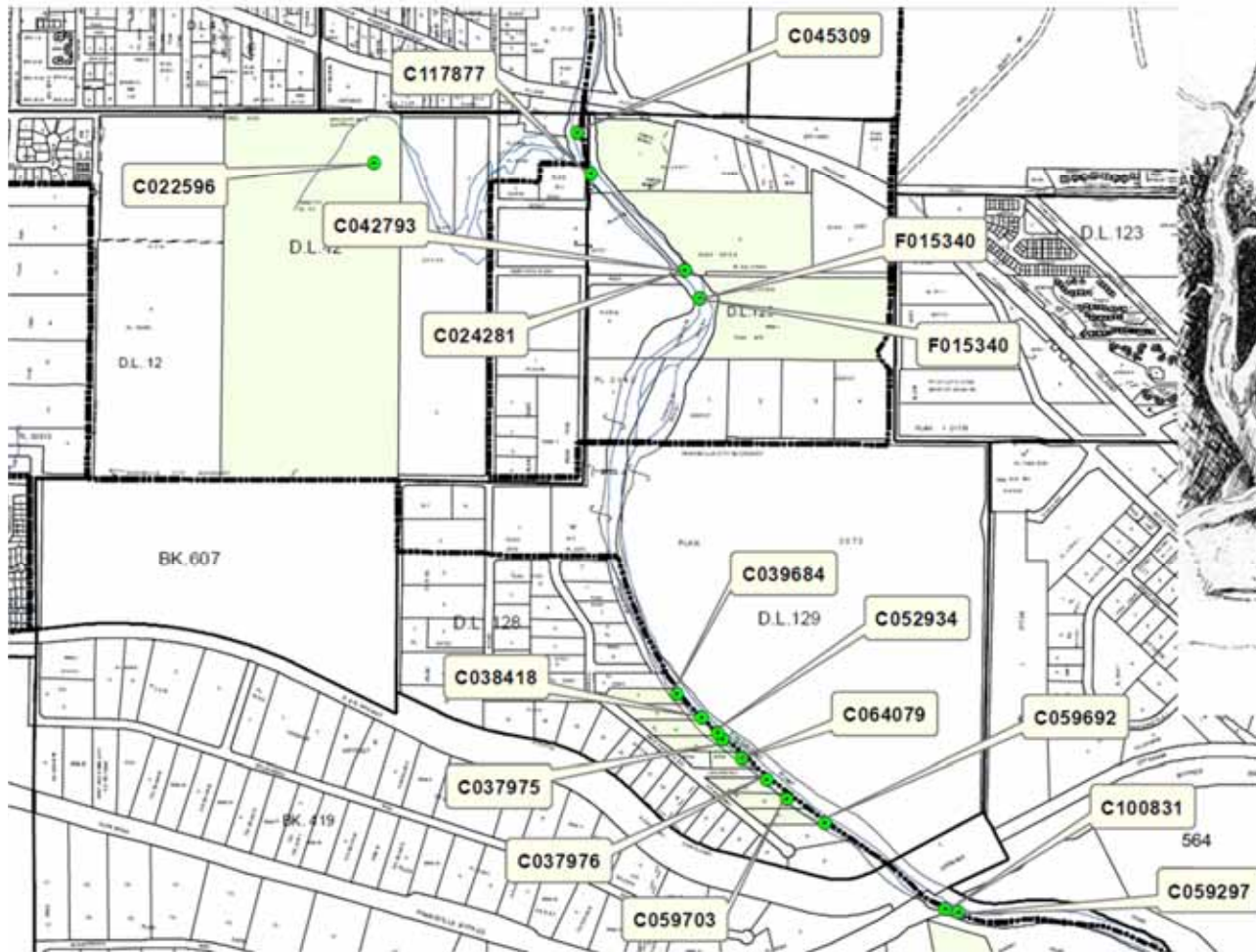


Regional Water Supply Storage.....HISTORY



Province of British Columbia
Ministry of Environment,
Lands and Parks

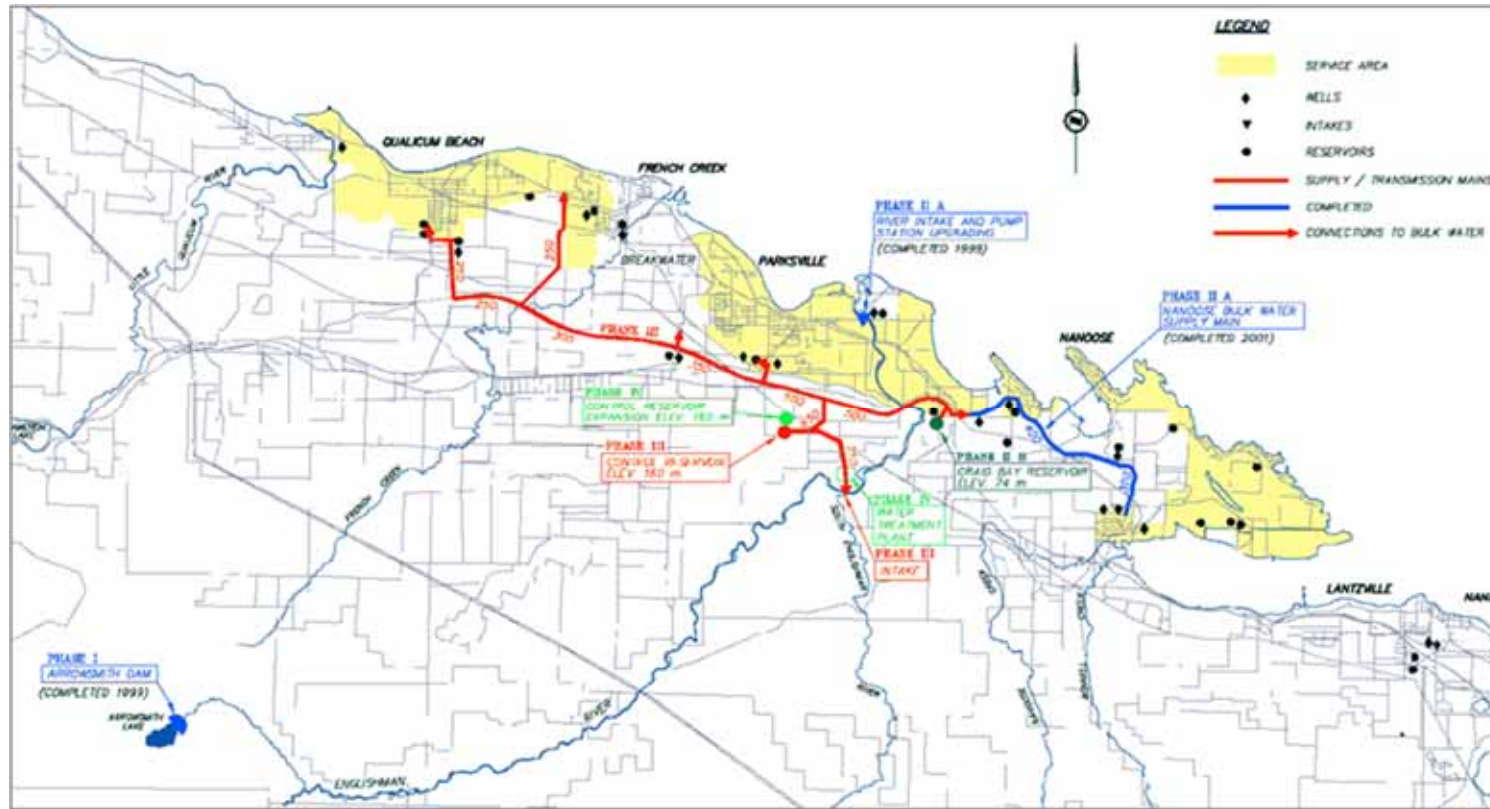
Water Allocation Plan - 1993



Identified Arrowsmith Lake as one of the most economically and environmentally attractive sites for water storage impoundment.

Regional Water Supply Storage..... HISTORY

In 1996 a water Licence application was submitted.



- A Conditional Water License was issued in March 1997 authorizing the construction of the Arrowsmith Dam, a maximum withdrawal of 47,954 m³/day of water from the Englishman River for the proposed bulk water system and the storage of 9,000,000 m³ of water at Arrowsmith Lake.
- The Conditional Water Licence and corresponding Provisional Operating Rule were issued based on the premise of utilizing the existing City of Parksville water intake in the interim until such time the future proposed water intake location was determined and constructed (Phased Approach – Failing Public Consent).

History.....

- Dam Constructed in 1998 - 1999



Arrowsmith Lake Dam Construction - 1998

History.....

Commissioned in 2000 / 2001

Storage = 9 million m³

Typical Operational Period:

May to October



Arrowsmith Lake Reservoir



Arrowsmith Dam



Arrowsmith Dam – Control Station

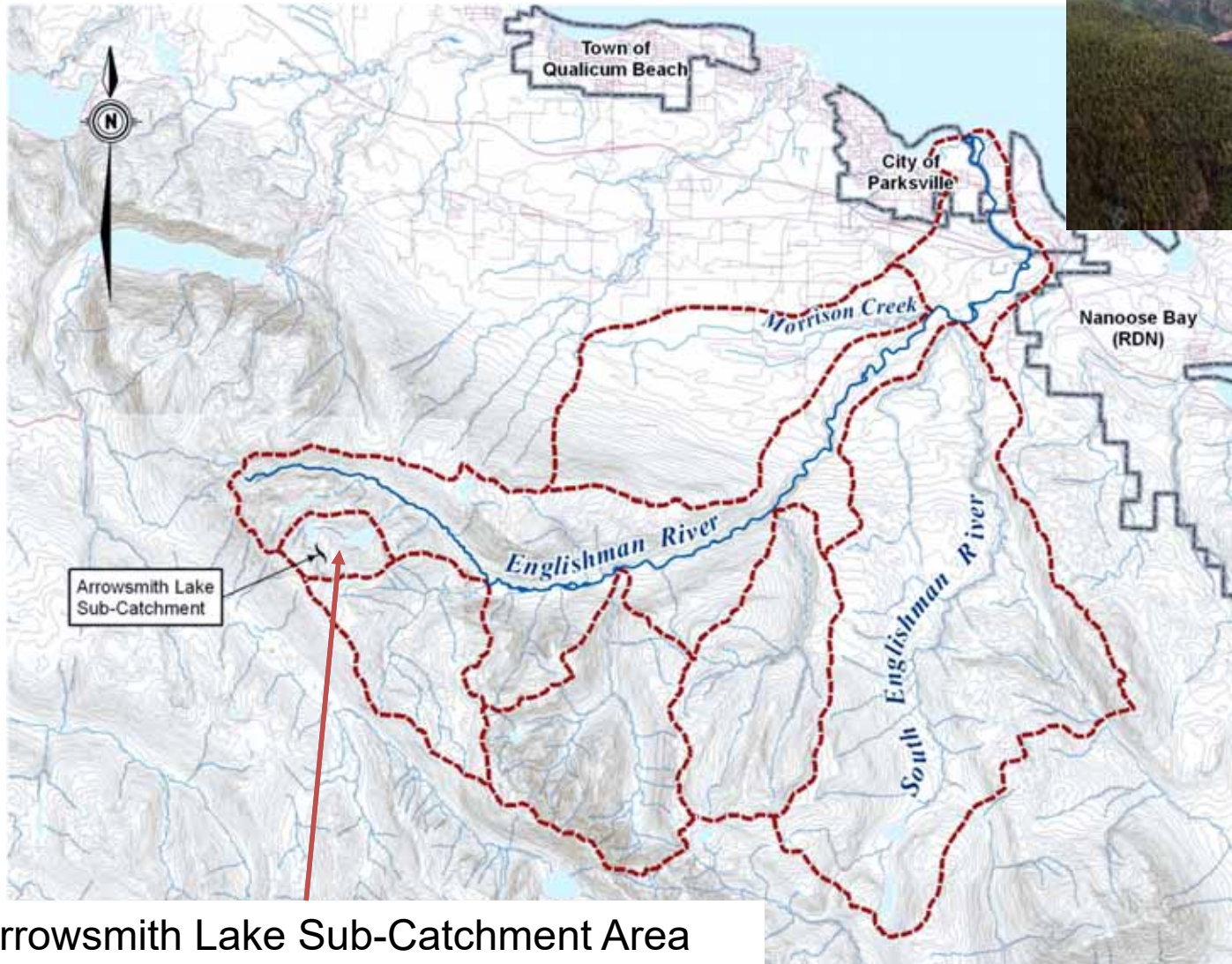


Location

Parksville

Arrowsmith Dam

DRAINAGE AREAS



Arrowsmith Lake Sub-Catchment Area
= 5 km² (1.5 %)

Total Englishman River Drainage Basin
= 324 km²

RESERVOIR STORAGE

Top Water Level = 828.5 m
Natural Water Level (Lake) = 816 m
Low Water Level = 802 m

Additional Storage = 5 million m³
Total Storage = 9 million m³

Approx. storage allocated for
fisheries enhancement = 4.5 million m³



FISHERIES FLOW TARGETS

*Mean Average Discharge (MAD) = 13.70 m³/s

Critical Rearing Flow (1:79 Year occurrence) = 0.70 m³/s (5.1 % MAD)
DFO & MoE Target – Preferred Rearing Flow = 1.13 m³/s (8.2 % MAD)
(Lower Reaches of E.R.)

Given.....Provisional Operating Rule Based on Maintaining
1.6 m³/s (Greater than Rearing Flow and Future Water Supply)

*Englishman River Water Allocation Plan – MoE, April 1993

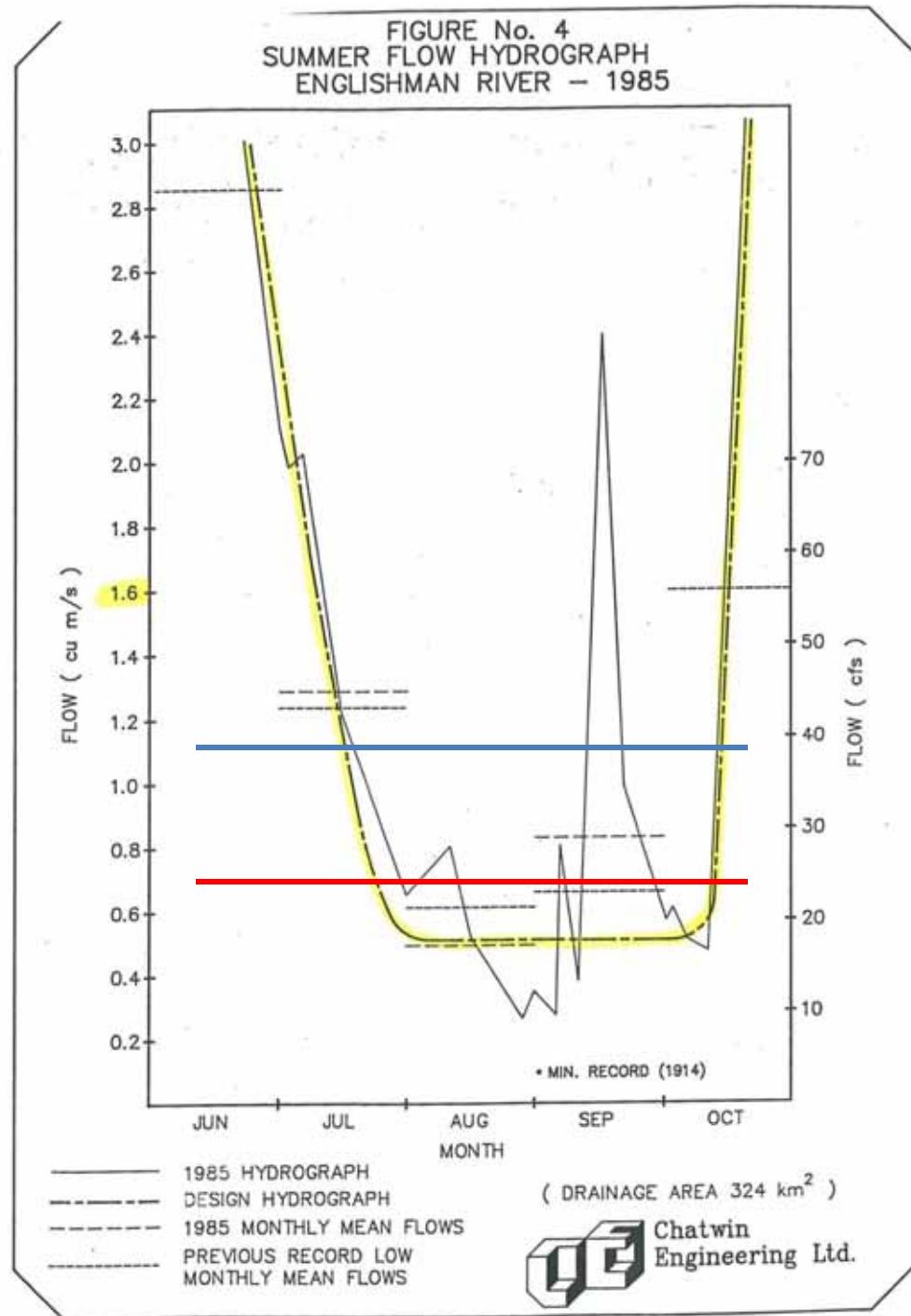
FISHERIES FLOW TARGETS

Critical Rearing Flow (1:79
Year occurrence)

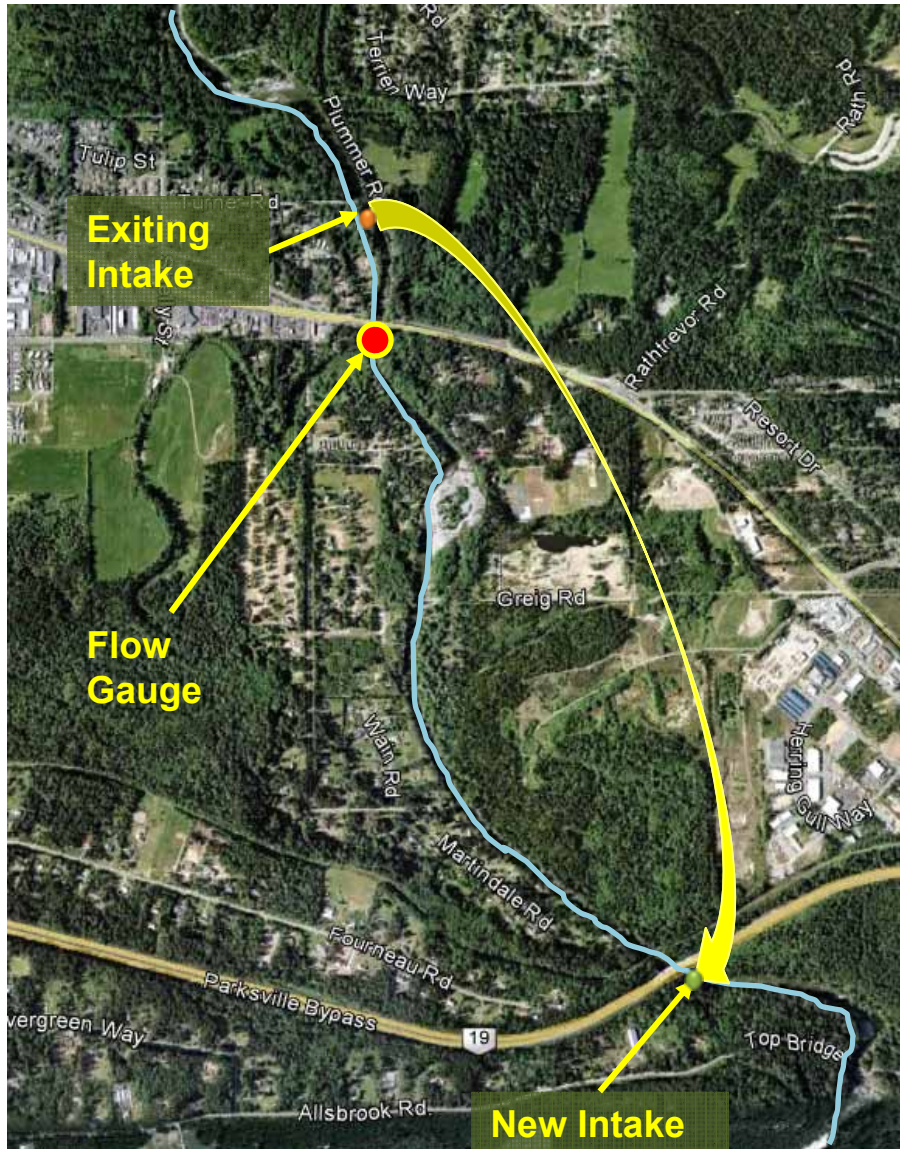
= $0.70 \text{ m}^3/\text{s}$

DFO & MoE Target –
Preferred Rearing Flow

= $1.13 \text{ m}^3/\text{s}$



Summary..... Provisional Operation Rule



Rule: = 1.6 m³/s

Value given to us by Province for flow downstream of the flow gauge:

is a quantity greater than instream fish flow maintenance plus future maximum monthly water withdrawal.

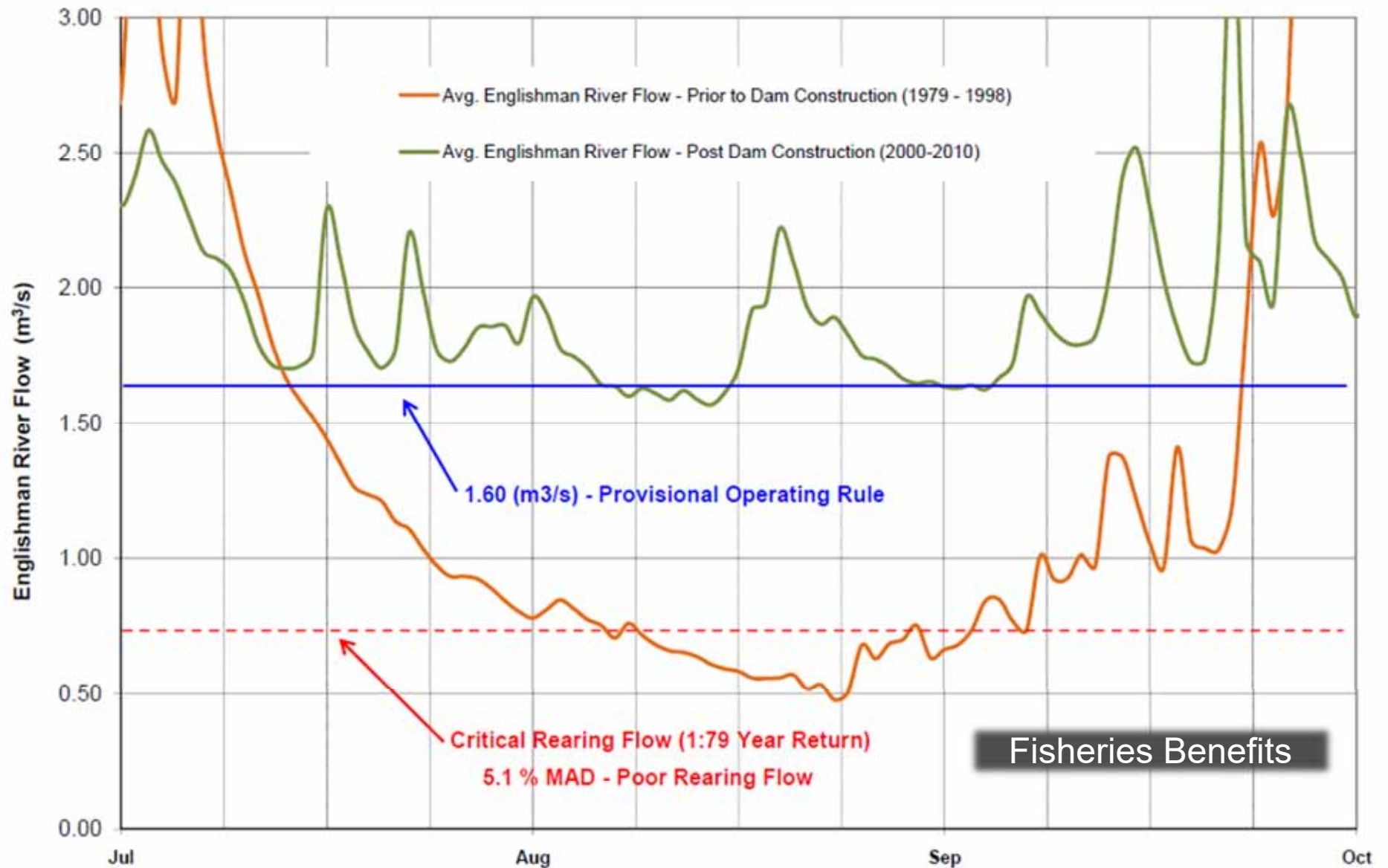
Instream Fish Flow Maintenance:
= 1.13 m³/s +

Future max. monthly water withdrawal = 0.34 m³/s

New Provisional Rule:
~ 1.2 m³/s

Based on Intake being upstream of the flow gauge and within design constraints of the dam (1:15 year drought)

Englishman River Flow - Before and After Dam Construction



Note: All Flow Data from Water Survey
Canada Hydrometric Gauge 08HB002
Located at Bridge on Hwy 19A

Fisheries Benefits:

Monthly Average Discharge Volumes
Englishman River 1913 - 2010

6/20/2011

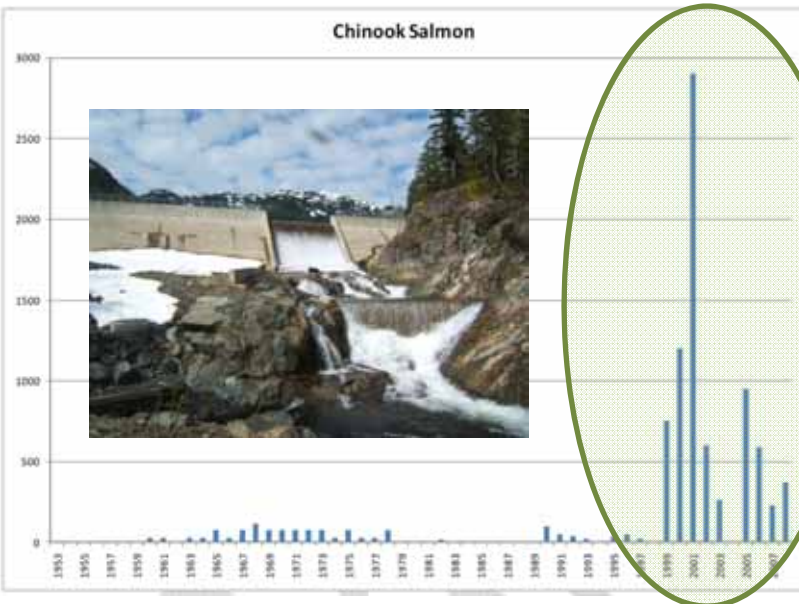
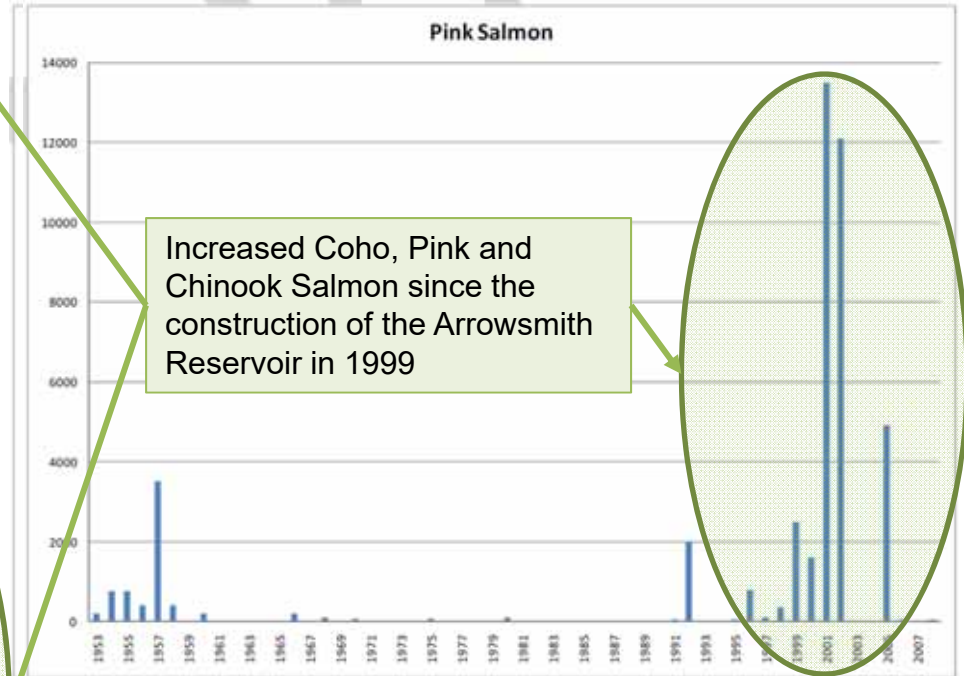
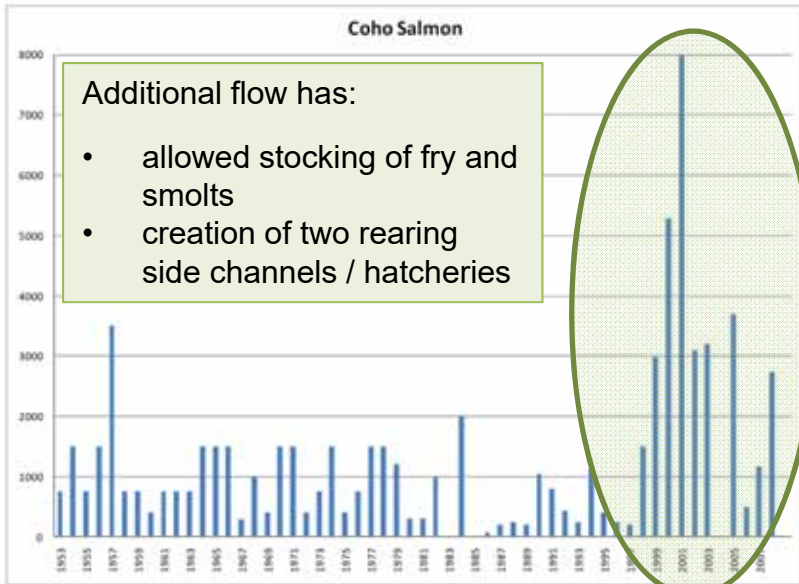
Year	June	July	August	September	October
1913	9.25	5.43	1.01		7.94
1914	7.24	2.42	0.63		
1915	3.04	1.24	0.78	0.68	17.50
1916	17.30	9.11	3.04	1.15	2.18
1917	11.70	4.60	1.24	1.42	
1970	6.38	1.43	0.65	0.88	
1971	13.30	7.11	2.06	2.04	
1979	2.85	2.40	0.65	6.06	12.90
1980	5.94	3.39	0.84	1.21	1.61
1981	4.95	1.75	0.65	2.84	21.50
1982	12.00	3.50	1.03	0.71	22.80
1983	6.59	5.16	1.04	0.97	2.96
1984	7.33	2.84	0.72	1.21	17.20
1985	4.64	1.29	0.50	0.85	10.30
1986	4.88	1.79	0.53	0.42	1.29
1987	5.94	1.55	0.58	0.34	0.29
1988	8.32	3.07	0.87	0.70	1.84
1989	4.32	1.93	0.87	0.40	5.79
1990	6.65	1.32	0.38	1.02	21.60
1991	2.15	0.89	7.10	3.10	0.64
1992	1.31	1.04	0.42	0.84	6.87
1993	6.17	1.34	0.50	0.25	1.13
1994	4.06	1.14	0.48	0.46	3.36
1995	4.09	1.62	0.91	0.35	7.49
1996	3.41	1.16	0.33	0.50	8.29
1997	9.48	5.37	1.98	5.62	28.40
1998	4.00	1.63	0.39	0.34	2.34
1999	18.01	10.5	4.38	2.11	4.87
2000	8.51	2.59	2.29	1.58	8.58
2001	3.51	1.52	2.51	1.72	3.27
2002	6.83	2.14	1.72	1.58	1.11
2003	3.6	1.34	1.23	1.57	31.7
2004	2.85	2.06	1.83	2.89	8.9
2005	3.55	1.85	1.74	1.76	10.3
2006	6.49	2.34	1.61	1.18	1.03
2007	3.41	3.91	1.77	1.79	11.21
2008	7.97	2.42	2.04	2.07	4.59
2009	3.06	1.27	1.26	1.50	5.39
2010	8.98	2.50	1.66	3.63	9.13

Arrowsmith Dam in Operation

Values of below 1.0 cubic metres per second
 Values greater than or equal to 1.6 cubic metres per second

Note:
This information was taken from the Water Survey of Canada Archived Hydrometric Data - Englishman River near Parksville site 08HB002 - Monthly Mean Discharge (m3/s) AWS Englishman River Historical.xls

Fisheries Benefits



Source: Draft Report V1.0 Englishman River Instream Flow Study – Background Data Review. Prepared from DFO by Ecofish Research Ltd.

DFO Salmon escapement estimates – 1953 - 2008

Regional Water Supply Storage..... HISTORY

Between 2000 and 2005, further progression of the AWS capital plan commenced focusing on the future intake location. The capital plan prepared by Koers and Associates took into account a triple bottom line approach of weighing environmental, financial, risk and social factors and therefore further determined that the best location would be downstream of the originally proposed intake.

In 2009, the AWS retained Associated Engineering through a quality based selection process to further develop the capital plan based on the downstream option. The primary objectives of the study were two-fold.

- The first was to determine the site and development concept for a new water intake, water treatment plant (WTP) on the Englishman River.
- The second and equally important objective was to determine how the surface water and groundwater resources can be best managed.

In 2011, CH2H Hill was retained to prepare a preliminary design and detailed design of the future intake, water treatment plant and transmission mains.

Project Update – Contract 1:

Scope:

Water Intake, Pump Station, Water Treatment Plant and Transmission Main to Top Bridge Reservoir

- Is approximately 24 % complete in various components.
- Currently on time and on budget
- Over 25 Change Orders
- Completed Critical Milestones (Fisheries Intake)



Project Update – Contract 1: New Intake

**Full Time
Environmental
Monitoring**



Project Update – Contract 1: New Intake



**Sized to Meet Future
OCP Build Out
Projections**

Project Update – Contract 1: New Intake



**Fish Friendly
Stainless Steel 316
Screens to Meet
DFO Requirements**



**Automated Air
Backwash System
behind the Screens
(Avoids Instream
maintenance)**



Project Update – Contract 1: New Intake

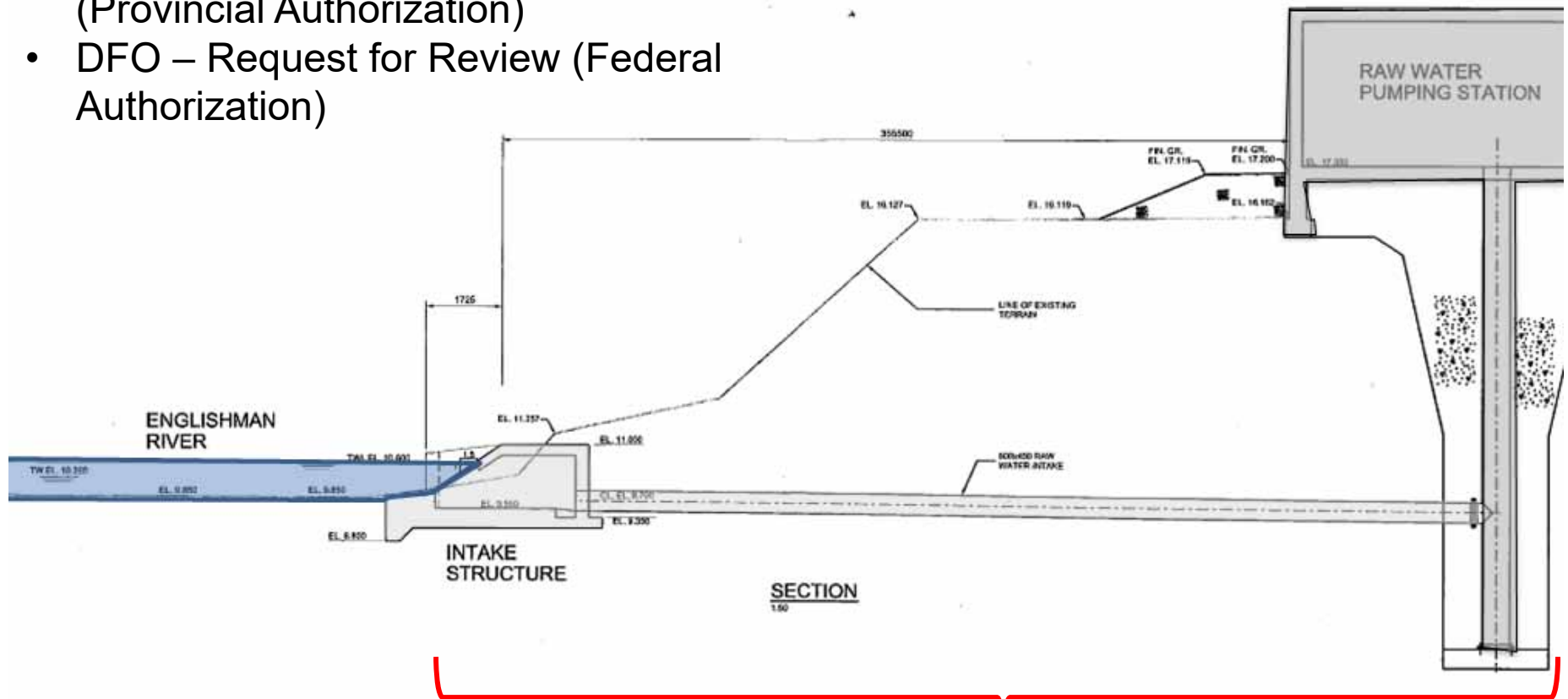


**Habitat Mitigation
Work Along and
Instream for
Steelhead Parr,
Salmon Rearing
and Spawning**



Project Update – Contract 1: New Intake

- Change of Works Application Approved (Provincial Authorization)
- DFO – Request for Review (Federal Authorization)



Built for Ultimate OCP Build Out Development

Project Update – Contract 1: Pump Station

**Sized to meet Future
OCP Build Out
Projections**



**One Pipe for Current
Demand, Second
Pipe for Future**



**One Pump Installed for Current
Demand, Second Pump Installed
When Demand Warrants**



Water Treatment Plant Options

Water Treatment Plant

To lessen initial costs, ERWS is proceeding with a reduced phased approach which includes water treatment capacity of 16 million litres per day of membrane filtration, ultra-violet light (UV) and chlorine disinfection.

Benefits

- Reduced health risks
- Improved water quality
- Ensures customers receive best quality water year round
- Will meet Canadian Drinking Water Guidelines



Project Update – Contract 1: Water Treatment Plant

**Sized to meet Future
OCP Build Out
Projections**



**Additional
Underground
Clearwell for
Storage = 830 m³
(220,000 US gal)**

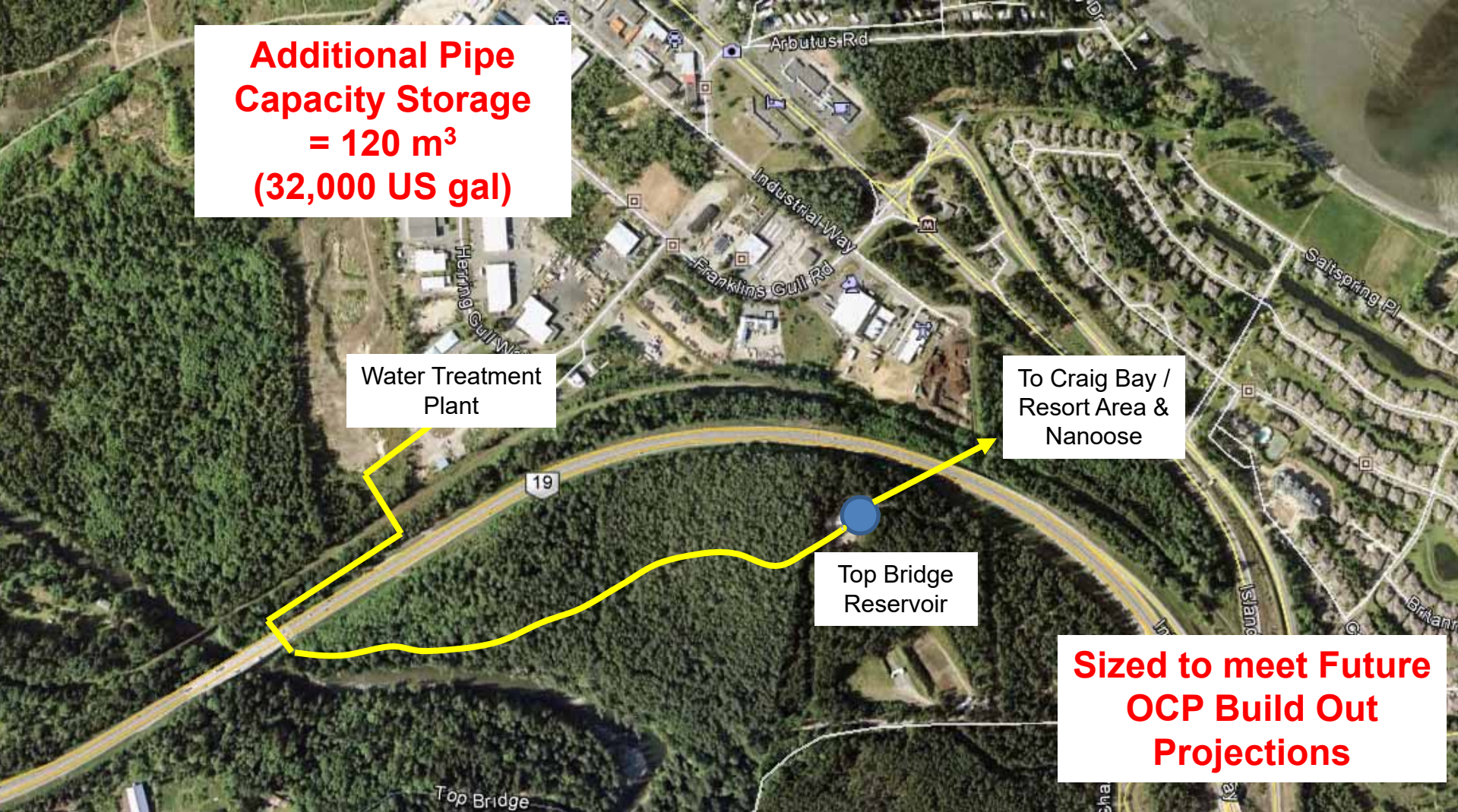
Project Update – Contract 1: Water Treatment Plant



**One Pump for
Current Demand,
Second Pump for
Future**



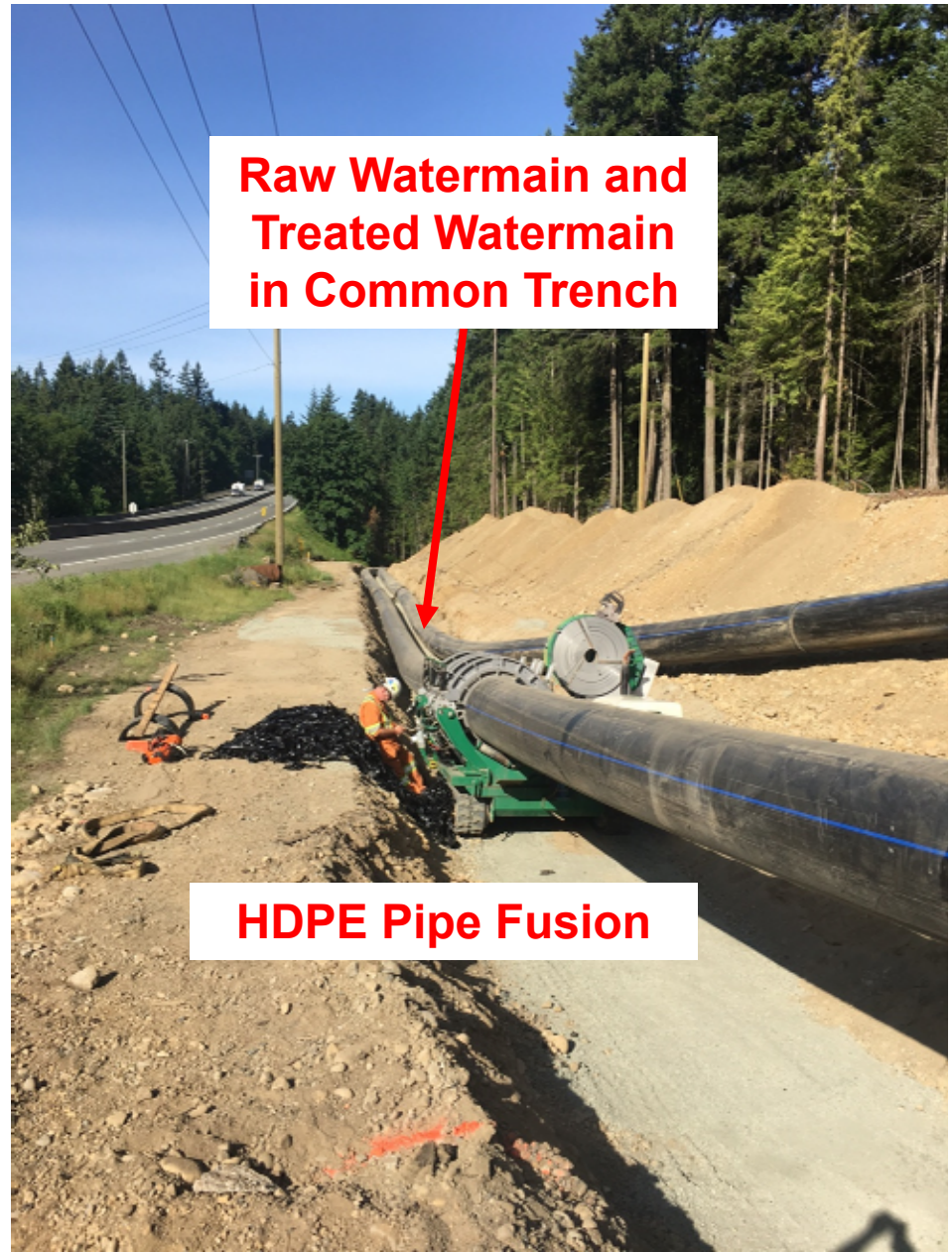
Project Update – Contract 1: Transmission Main to Top Bridge Park



Project Update – Contract 1: Transmission Main



E&N Rail Crossing



Raw Watermain and Treated Watermain in Common Trench

HDPE Pipe Fusion

Project Update – Contract 1: Transmission Main



Transmission Main to Supply Top Bridge Reservoir 70 % Complete

Surface Gravel – Multi-Purpose Trail / Access Through Top Bridge Park



10 Additional Fire Hydrants Installed for Urban Interface Fire Protection



Sized to meet Future OCP Build Out Projections

Project Update – Contract 2: Transmission Main to Springwood

Additional Pipe Capacity Storage = 1,200 m³ (320,000 US gal)

9 Additional Fire Hydrants Added for Urban Interface Fire Protection

Springwood Reservoir

Water Treatment Plant

Sized to meet Future OCP Build Out Projections

Project Update – Contract 2: Transmission Main to Springwood



Englishman River Crossing

Project Update – Contract 2: Transmission Main to Springwood



**Work Completed
Within Fisheries
Window**

Project Update – Contract 2: Transmission Main to Springwood

**Full Time
Environmental
Monitoring**



Project Update – Contract 2: Transmission Main to Springwood



River Bed Fully Restored Including Reconstructing the Original Rock and Gravel Complexity Habitat Areas. Bio-Engineered Slope Stability to be Installed

Project Update – Contract 2: Transmission Main to Springwood



Completed Within Fisheries Window



Shelly Creek Crossing

Project Update – Contract 2: Transmission Main to Springwood



Martindale Springs

GeoGrid / Filter Fabric, Drain Rock and Perforated Drains Installed to Ensure Groundwater is Conveyed to Martindale Users

Project Update – Contract 2: Transmission Main to Springwood

Critical Milestones Completed:

- Englishman River
- Shelly Creek
- Martindale Springs

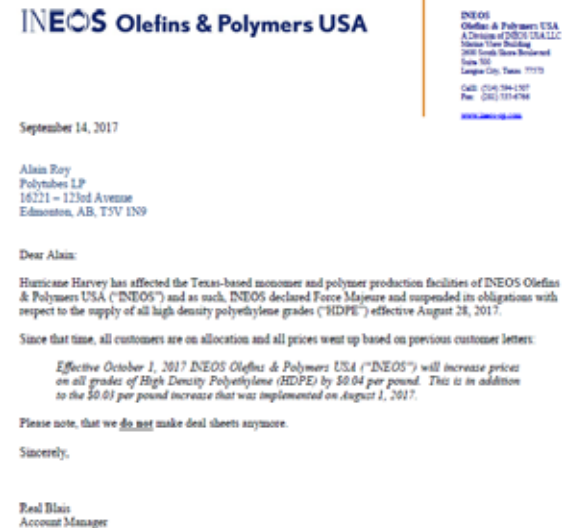


Majority of
Corridor Cleared
and Grade
Prepared for Pipe
Installation

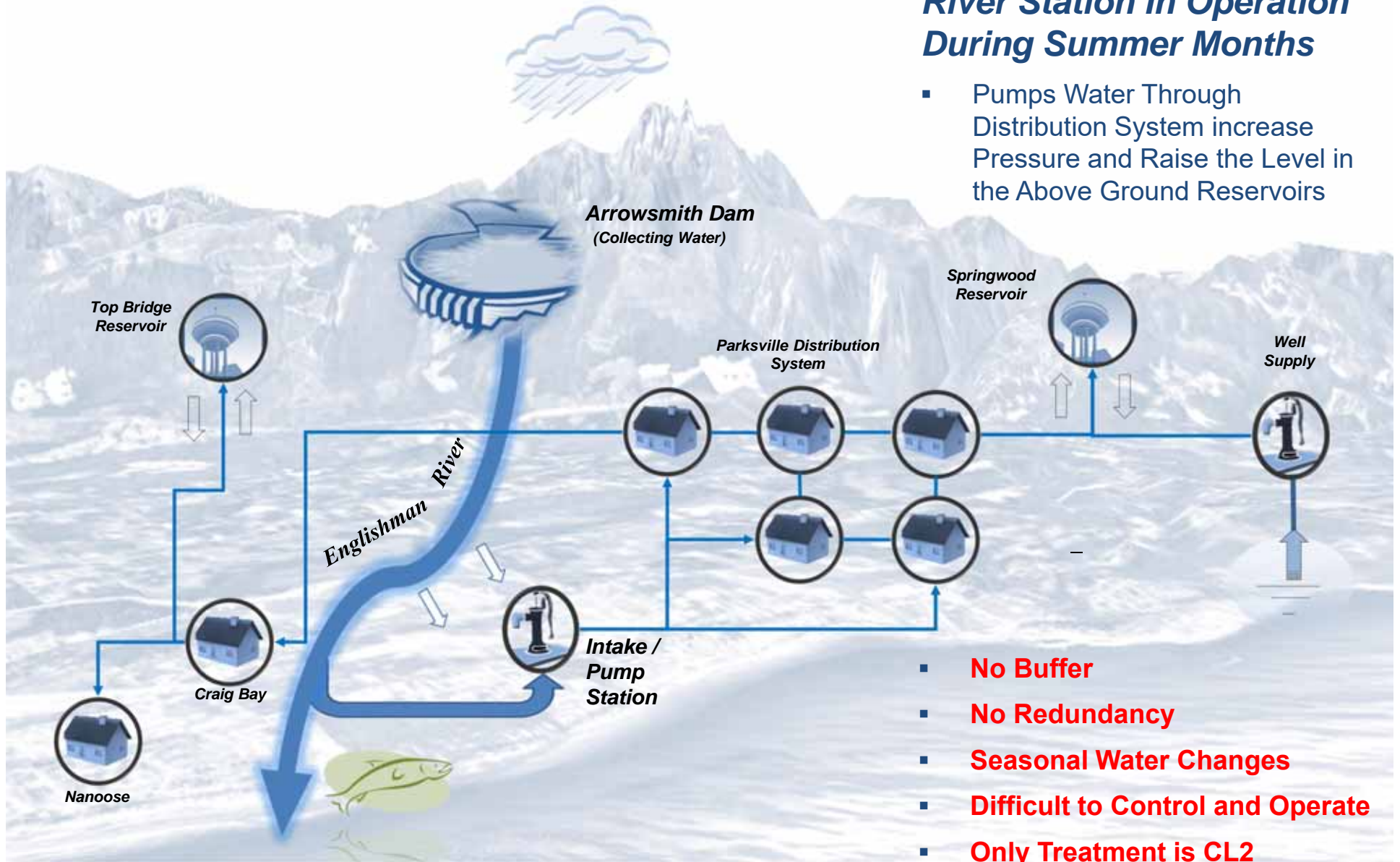


Project Update – Contract 1 and 2:

- Contract 1: 24 %, Target Completion Date - Spring of 2019
- Contract 2: 9 %, Target Completion Date - Spring of 2018
- Future Cost Implications:
 - Extra Rock Encountered in River and Side Banks
 - Force Majeure (Global Problem of Hurricane Harvey – Locally Effected)



Existing Water Supply / Distribution System



River Station In Operation During Summer Months

- Pumps Water Through Distribution System increase Pressure and Raise the Level in the Above Ground Reservoirs

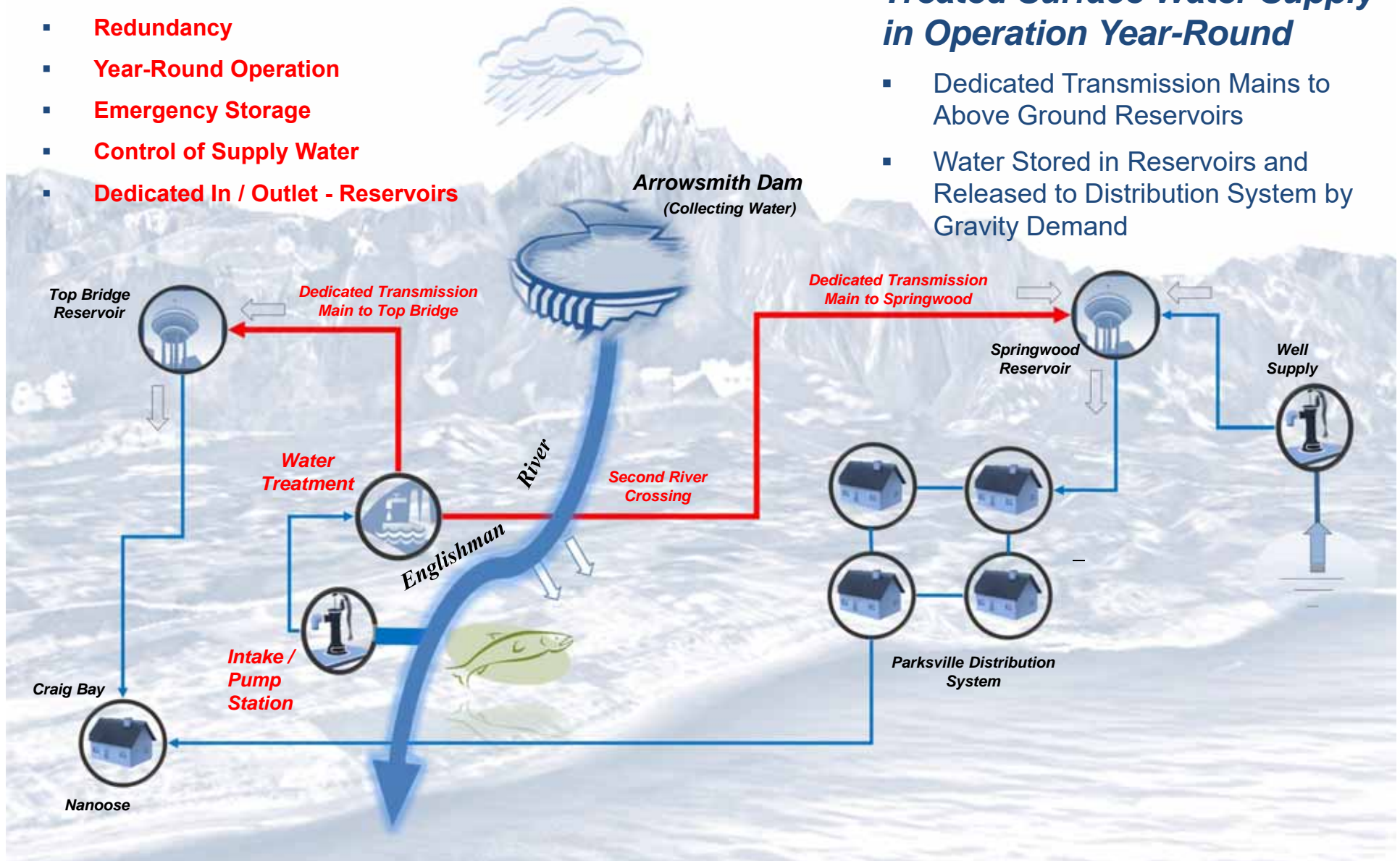
- **No Buffer**
- **No Redundancy**
- **Seasonal Water Changes**
- **Difficult to Control and Operate**
- **Only Treatment is CL2**

Future Water Supply / Distribution System

- **Additional Future Storage**
- **Redundancy**
- **Year-Round Operation**
- **Emergency Storage**
- **Control of Supply Water**
- **Dedicated In / Outlet - Reservoirs**

Treated Surface Water Supply in Operation Year-Round

- Dedicated Transmission Mains to Above Ground Reservoirs
- Water Stored in Reservoirs and Released to Distribution System by Gravity Demand



Summary

Objectives

- Publicly acceptable
- Affordable
- Low impact / blends into environment
- Simple to operate
- Robust and sustainable
- Enable public education
- Public Engagement

Results

- Over 80 % Approval Public Consent
- Received over 12 million in Fed. / Prov. Grants
- Reduced Cost Option
- Phased Construction
- Intake and Water Treatment – Open to Public
- Continued Habitat Enhancement
- Community Working Group Meetings, Open Houses, Media Releases, Presentations.....



Summary

- Improved Additional Emergency Fire Protection along Urban Interface – 19 Additional Fire Hydrants added on Transmission Main
- Drinkwater Water Exceeding Canadian Drinking Water Guidelines
- Improved Water Distribution System and Redundancy for Emergencies
- Dedicated Supply Mains
- Improved Water Quality
- Improved Water Turn –Over (age)
- Improved Operations and Control of Water Supply
- Additional Water Storage for Future:
 - Clearwell - 830 Cubic Meters (220,000 US gal)
 - Top Bridge Transmission – 120 Cubic Meters (32,000 US gal)
 - Springwood Transmission – 1,200 Cubic Meters (320,000 US gal)

Summary

The Arrowsmith Lake Reservoir has:

- Provides substantial additional water supply to the Englishman River during the critical summer months,
- Proven to be the most economical and environmental means of conveying water for both domestic and water supply,
- Will continue to provide summer river flow augmentation for fisheries and domestic supply into the future.

A review of the Arrowsmith Lake Reservoir Water Supply by CH2M Hill / Kerr Wood Leidal concluded that the Arrowsmith Lake Reservoir is capable of supplying bulk water for the next 20 years – based on **peak day demand of 24 MLD** withdrawal and maintaining minimum conservation flows for drought conditions within the original design constraints of the Arrowsmith Dam (1:15 year).

The review accounted for:

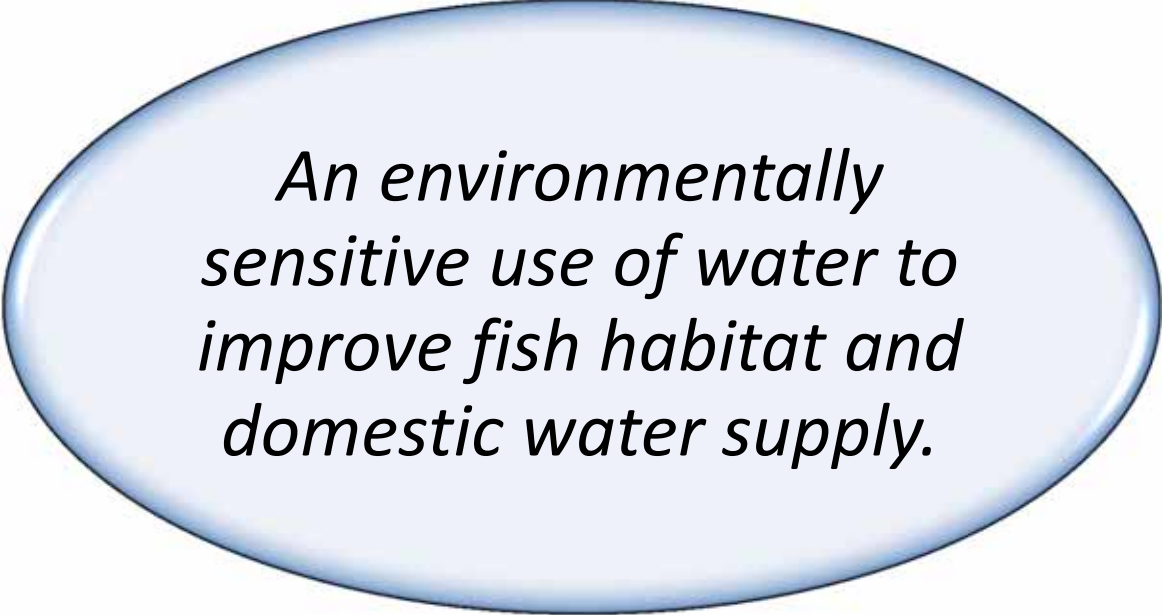
- climate changes,
- environmental considerations for fisheries and
- future growth and demands

Current Peak Day Summer Demand from the Englishman River Water Supply (June 27, 2017) = 8,300 cubic meters per day (**8.3 MLD**)

Summary

Recommendations

- Supply from the Arrowsmith Reservoir into the Englishman River is sufficient to meet the needs of the community for the next 20 years based on current climate predictions and current Official Community Plans.
- Should Council wish to promote rapid development beyond what was envisioned in the Official Community Plan through City boundary extensions and up-zoning, additional water supply storage would need to be developed to accommodate the additional growth demands. Surface Supply, Groundwater Supply, Aquifer Storage and Recovery and Demand Management should all be considered.
- If Council wishes to entertain the additional storage for water supply ahead of when required; need to look at a full technical review including:
 - Provincial And Federal Fisheries Requirements and Approvals
 - Provincial Dam Safety Requirements
 - Flood Inundation Studies and Mapping
 - Environmental Mitigation Measures
 - Access requirements and legal Right-of-Ways
 - Consultation with Land Owner to understand if willing to sell, if so, what costs and what compensation would be required for lost forestry timber rights in perpetuity?
- Should Council wish to look into additional flows required for fisheries purposes (non-consumptive licensing) to offset additional flow extraction from the Englishman River ahead of when required, recommendation would be to address the ERWS Board and continue the study and brought forward to the Arrowsmith Water Service Board on January 13, 2011 by BC Conservation Foundation on impounding Healy and Shelton Lakes.



*An environmentally
sensitive use of water to
improve fish habitat and
domestic water supply.*

THANK YOU.....



DATE: October 25, 2017

REPORT TO: ENGLISHMAN RIVER WATER SERVICE MANAGEMENT BOARD

FROM: ENGLISHMAN RIVER WATER SERVICE MANAGEMENT COMMITTEE

SUBJECT: ENGLISHMAN RIVER WATER SERVICE (ERWS)
REVISED 2018 - 2022 FINANCIAL PLAN

PURPOSE: ADOPTION OF THE ERWS REVISED 2018 - 2022 FINANCIAL PLAN

EXECUTIVE SUMMARY:

The ERWS 2017 - 2021 Financial Plan sets out the financial requirements needed to advance the objectives of bulk water supply to the Joint Venture Communities.

RECOMMENDATION(S):

1. THAT the report from the Englishman River Water Service Management Committee, dated October 25, 2017, entitled ERWS 2018 - 2022 Financial Plan be received.
2. THAT the Englishman River Water Service Management Board accept the 2018 - 2022 Financial Plan as outlined in Table 1 attached to the October 25, 2017 report.
3. THAT the Englishman River Water Service Management Board recommend the Joint Ventures adopt their portion of the 2018 - 2022 Financial Plan as outlined in Table 2 attached to the October 25, 2017 report.

BACKGROUND:

The ERWS project is now approximately 30 % complete in the construction phase and is currently on time and within the identified budgets.

The local market has been affected by unforeseeable global circumstances that may affect the supply of materials. In this case, Hurricane Harvey caused the shutdown of resin suppliers in Houston Texas. This has a direct bearing on the current market price of High Density Polyethylene (HDPE) pipe and materials suppliers have enacted "Force Majeure" which now puts a premium on HDPE material costs. Approximately 7,000 feet of pipe is remaining to be supplied on the water transmission main to Springwood Reservoir and the demand market for this material has directly affected the price. Contractually, standard clauses exempt contracting parties from fulfilling their contractual obligations for causes that could not be anticipated. Alternately, we could wait until prices go back to original but the contractor could claim extra for delay in the contract.

Also, additional quantities rock in the river, over excavation and clearing and grubbing have been encountered but not fully quantified and progressed to date. At this point in time we feel these extra costs are within the contingency amount and will have no impact on the 2018 budget. Should this change throughout the remaining course of construction and exceed the contingency, a revised budget will need to be brought forward to the ERWS Board for consideration.

A 2018 - 2022 Financial Plan has been prepared for consideration by the ERWS Management Board. Table 1 attached outlines the detailed total ERWS project cost and Table 2 attached references each jurisdiction's share to take forward to each respected Council / Board for ratification.

OPTIONS:

1. Accept the Revised ERWS 2018 - 2022 Financial Plan as presented in Table 1 attached.
2. Provide the ERWS Management Committee with further direction.

ANALYSIS:

Option 1

This is consistent with the ERWS Management Committee recommendation to proceed with the project and would allow completion by June 2019.

Option 2

The 2018 - 2022 Financial Plan sets out the financial requirements needed for ERWS to carry out projects necessary to advance ERWS objectives.

FINANCIAL IMPACT:

Cost sharing for the Englishman River Water Service budget is established based on ownership (i.e. Parksville 74 % and RDN 26 %) as referenced in Schedule "C" of the Englishman River Water Service Joint Venture, dated July 1, 2011.

The ERWS has received over \$12 million in funding from senior government.

The ERWS 2018 - 2022 Financial Plan sets out the financial requirements needed for the ERWS staff to carry out the project for the next several years.

REFERENCES:

ERWS 2017 - 2021 revised Financial Plan adopted on May 3, 2017

Table 1, dated October 25, 2017 showing the recommended ERWS Revised 2018 - 2022 Financial Plan and Table 2 showing each Joint Venture's requisition share.

TABLE 1
ENGLISHMAN RIVER WATER SERVICE
2018 - 2022 FINANCIAL PLAN (\$)

	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 YTD	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
REVENUE													
Joint Venture Requisitions													
Parksville Requisition (74 %)	1,082,538	225,017	443,183	593,655	468,754	1,634,991	4,435,406	11,986,367	5,853,943	1,126,158	671,106	350,390	354,164
RDN Requisition (26%)	380,351	79,060	155,713	208,581	164,697	409,309	1,429,239	3,067,778	2,278,529	2,160,542	235,794	123,110	124,436
Total Joint Venture Requisitions	1,462,889	304,077	598,896	802,236	633,452	2,044,300	5,864,645	15,054,145	8,132,472	3,286,700	906,900	473,500	478,600
6063128.42													
Other Revenue													
Grants - Small Communities Fund & CWWF	0	483,801	669,172	581,257	0	828,854	828,854	5,171,146	6,063,128	0	0	0	0
Transfer From Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Revenue	0	483,801	669,172	581,257	0	828,854	828,854	5,171,146	6,063,128	0	0	0	0
TOTAL REVENUE	1,462,889	787,878	1,268,068	1,383,493	633,452	2,873,154	6,693,499	20,225,291	14,195,600	3,286,700	906,900	473,500	478,600
EXPENDITURES													
Operating													
Administration (Operating)													
Salaries / Wages	1,950	0	259	0	258	1,214	0	0	0	84,000	84,000	84,000	84,000
Training	0	2,060	0	59	0	0	0	102	100	100	100	100	100
Conferences / Seminars	0	1,006	0	0	0	0	0	0	0	0	0	0	0
Memberships	0	273	301	0	0	0	0	0	0	0	0	0	0
Contracts	1,628	748	5,109	1,819	0	0	0	2,040	2,100	2,100	2,200	2,200	2,300
Consulting	256	0	0	470	0	0	0	0	0	0	0	0	0
Legal Fees	0	2,596	0	0	3,427	0	0	3,570	3,600	3,700	3,800	3,900	3,900
Audit Fees	0	4,172	4,100	4,100	4,100	3,900	3,900	7,500	7,700	4,400	4,400	4,500	4,500
Tel / Cable	0	809	924	602	0	0	50	510	500	500	500	600	600
Meeting Costs	8	478	608	1,276	1,901	1,219	0	1,243	1,300	1,600	1,600	1,700	1,700
Licenses and Insurance	0	0	0	0	884	1,675	828	510	500	500	500	600	600
Advertising	0	0	0	766	11,382	0	0	204	200	200	200	200	200
Printing	0	0	0	0	1,920	225	0	0	0	0	0	0	0
Courier	0	0	0	44	29	0	0	102	100	100	100	100	100
Small Tools, Equipment & Furniture	81	1,631	139	356	0	85	43	510	500	500	500	600	600
Hydro	0	0	0	0	53	1,397	0	0	0	0	0	0	0
Minor Capital - Contracts	1,209	0	0	0	0	0	0	0	0	0	0	0	0
Minor Capital - Parts / Materials	503	0	0	0	0	0	0	0	0	0	0	0	0
Intake, Raw Watermain and Joint Transmission Mains										150,000	150,000	150,000	150,000
Water Treatment Plant										225,000	225,000	225,000	230,000
ASR										0	0	0	0
Total Administration (Operating)	5,634	13,772	11,440	9,492	23,954	9,714	4,821	16,291	16,600	472,700	472,900	473,500	478,600
Total Operating	5,634	13,772	11,440	9,492	23,954	9,714	4,821	16,291	16,600	472,700	472,900	473,500	478,600

Capital - Program Summary

Description	G/L	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 YTD	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
Property Acquisition - Administration	7-6-28-9750-300	13,683	-4,070	11,203	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Contracts	7-6-28-9750-330	4,983	0	0	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Consulting	7-6-28-9750-331	6,574	0	0	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Equipment Res Charge Out	7-6-28-9750-800	136	739	0	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Parts Materials / Supplies	7-6-28-9750-450	1,200,550	0	0	0	0	0	0	0	0	0	0	0	0
Total Property Acquisition		1,225,925	-3,331	11,203	0	0	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Administration	7-6-28-9751-300	48,421	34,906	39,635	35,808	15,212	19,719	17,738	42,000	42,000	42,000	42,000	0	0
River Intake / Supply Mains - Contracts	7-6-28-9751-330	358	256	0	1,031	1,450	0	2,839,385	4,770,000	1,380,000	180,000	0	0	0
River Intake / Supply Mains - Engineering	7-6-28-9751-331	10,685	17,681	338,863	490,301	236,921	579,263	191,561	280,000	300,000	0	0	0	0
River Intake / Supply Mains - Legal	7-6-28-9751-332	0	0	0	0	1,592	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Advertising	7-6-28-9751-410	0	0	0	603	0	0	1,396	0	0	0	0	0	0
River Intake / Supply Mains - Meetings	7-6-28-9751-423	0	103	3,822	790	780	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Parts / Supplies	7-6-28-9751-450	3,023	389	1,008	443	489	0	573	0	0	0	0	0	0
River Intake / Supply Mains - Equip. Charge Out	7-6-28-9751-800	2,189	727	19	0	1,188	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Equip. Lease / Rent	7-6-28-9751-340	28	0	915	0	0	0	0	0	0	0	0	0	0
Joint Transmission Main - Contracts	7-6-28-9754-330	0	0	0	0	0	6,586	572,560	560,000	310,000	50,000	0	0	0
Joint Transmission Main - Consulting	7-6-28-9754-331	0	0	0	0	0	122,540	27,845	40,000	40,000	0	0	0	0
Joint Transmission Main - Administration	7-6-28-9754-300	0	0	0	0	0	0	7,263	0	0	0	0	0	0
Joint Transmission Main - Parts / Supplies	7-6-28-9754-450	0	0	0	0	0	0	70	0	0	0	0	0	0
Joint Transmission Main - Equip. Charge Out	7-6-28-9754-800	0	0	0	0	0	0	384	0	0	0	0	0	0
COP Transmission Main - Contracts	7-6-28-9755-330	0	0	0	0	0	9,717	358,965	3,030,000	2,720,000	100,000	0	0	0
COP Transmission Main - Consulting	7-6-28-9755-331	0	0	0	0	0	460,317	520	225,000	395,000	0	0	0	0
COP Transmission Main - Administration	7-6-28-9755-300	0	0	0	0	0	0	7,894	0	0	0	0	0	0
COP Transmission Main - Parts / Supplies	7-6-28-9755-450	0	0	0	0	0	0	194	0	0	0	0	0	0
RDN - Craig Bay Pump Station / Top Bridge Transmission											1,800,000	0	0	0
Total River Intake / Supply Mains		64,703	54,062	384,263	528,976	257,632	1,198,143	4,026,348	8,947,000	5,187,000	2,172,000	42,000	0	0
Water Treatment - Administration	7-6-28-9752-300	23,513	44,296	41,016	33,595	16,831	54,192	26,455	42,000	42,000	42,000	42,000	0	0
Water Treatment - Travel	7-6-28-9752-307	0	0	6,420	0	0	0	0	0	0	0	0	0	0
Water Treatment - Contracts	7-6-28-9752-330	27,222	20,167	0	1,032	45,327	173,868	1,917,218	10,600,000	8,200,000	600,000	350,000	0	0
Water Treatment - Engineering	7-6-28-9752-331	78,978	123,760	127,492	490,301	161,300	1,391,297	543,010	620,000	750,000	0	0	0	0
Water Treatment - Equip. Lease / Rental	7-6-28-9752-340	9,057	22,949	0	0	0	20,063	0	0	0	0	0	0	0
Water Treatment - Rent & Lease	7-6-28-9752-345	900	1,614	0	0	0	0	0	0	0	0	0	0	0
Water Treatment - Insurance / Permits	7-6-28-9752-400	102	102	0	0	0	0	168,494	0	0	0	0	0	0
Water Treatment - Advertising	7-6-28-9752-410	0	0	0	603	511	500	0	0	0	0	0	0	0
Water Treatment - Meeting Costs	7-6-28-9752-423	0	0	0	791	0	0	0	0	0	0	0	0	0
Water Treatment - Parts and Materials	7-6-28-9752-450	1,759	525	0	443	2,782	18,722	4,908	0	0	0	0	0	0
Water Treatment - Courier	7-6-28-9752-452	0	611	0	0	485	1,770	0	0	0	0	0	0	0
Water Treatment - Equip Res Charge	7-6-28-9752-800	0	306	739	0	485	2,726	2,244	0	0	0	0	0	0
Water Treatment - Gas & Oil	7-6-28-9752-460	689	0	0	0	0	0	0	0	0	0	0	0	0
Water Treatment - Hydro	7-6-28-9752-461	0	0	0	0	553	2,159	0	0	0	0	0	0	0
Total Water Treatment		142,219	214,330	175,666	526,765	228,274	1,665,297	2,662,330	11,262,000	8,992,000	642,000	392,000	0	0

Capital - Program Summary

Description	G/L	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Budget	2017 YTD	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
Aquifer Storage and Recovery - Administration	7-6-28-9753-300	0	47,966	68,824	42,248	10,218	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Contracts	7-6-28-9753-330	0	184,135	234,995	135,486	99,833	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Engineering	7-6-28-9753-331	24,407	263,943	229,267	128,733	13,232	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Equip Rental	7-6-28-9753-340	0	1,806	1,619	605	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Meeting Costs	7-6-28-9753-423	0	120	134	754	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Advertising	7-6-28-9753-410	0	0	0	603	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Parts / Materials	7-6-28-9753-450	0	9,491	136,424	5,894	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Small Tools	7-6-28-9753-451	0	0	5,832	39	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Courier	7-6-28-9753-452	0	0	0	161	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Hydro	7-6-28-9753-461	0	0	500	1,652	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Equip Res Charge Out	7-6-28-9753-800	0	1,585	7,901	2,086	309	0	0	0	0	0	0	0	0
Total Aquifer Storage and Recovery		24,407	509,045	685,496	318,261	123,592	0	0	0	0	0	0	0	0
Total Capital		1,457,254	774,107	1,256,628	1,374,001	609,498	2,863,440	6,688,678	20,209,000	14,179,000	2,814,000	434,000	0	0
TOTAL EXPENDITURES		1,462,889	787,878	1,268,068	1,383,493	633,452	2,873,154	6,693,499	20,225,291	14,195,600	3,286,700	906,900	473,500	478,600

TABLE 2
Parkville Requisition - ERWS
2018 - 2022 FINANCIAL PLAN (\$)

	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 YTD	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
REVENUE													
Joint Venture Requisitions													
Parkville Requisition (74%)	1,082,538	225,017	443,183	593,655	468,754	1,634,991	4,435,406	11,986,367	5,853,943	1,126,158	671,106	350,390	354,164
Other Revenue													
Grants - Small Communities Fund & CWWF	0	358,013	495,187	430,130	0	613,352	613,352	3,826,648	5,460,701	0	0	0	0
Transfer From Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Revenue	0	358,013	495,187	430,130	0	613,352	613,352	3,826,648	5,460,701	0	0	0	0
TOTAL REVENUE	1,082,538	583,030	938,370	1,023,785	468,754	2,248,343	5,048,758	15,813,016	11,314,644	1,126,158	671,106	350,390	354,164
EXPENDITURES													
Operating	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%
Administration (Operating)													
Salaries / Wages	1,443	0	192	0	191	898	0	0	0	62,160	62,160	62,160	62,160
Training	0	1,524	0	44	0	0	0	75	74	74	74	74	74
Conferences / Seminars	0	744	0	0	0	0	0	0	0	0	0	0	0
Memberships	0	202	223	0	0	0	0	0	0	0	0	0	0
Contracts	1,205	554	3,780	1,346	0	0	0	1,510	1,554	1,554	1,628	1,628	1,702
Consulting	189	0	0	348	0	0	0	0	0	0	0	0	0
Legal Fees	0	1,921	0	0	2,536	0	0	2,642	2,664	2,738	2,812	2,886	2,886
Audit Fees	0	3,087	3,034	3,034	3,034	2,886	2,886	5,550	5,698	3,256	3,256	3,330	3,330
Tel / Cable	0	599	684	445	0	0	37	377	370	370	370	444	444
Meeting Costs	6	354	450	944	1,407	902	0	920	962	1,184	1,184	1,258	1,258
Licences and Insurance	0	0	0	0	654	1,239	613	377	370	370	370	444	444
Advertising	0	0	0	566	8,423	0	0	151	148	148	148	148	148
Printing	0	0	0	0	1,421	167	0	0	0	0	0	0	0
Courier	0	0	0	33	21	0	0	75	74	74	74	74	74
Small Tools, Equipment & Furniture	60	1,207	103	263	0	63	32	377	370	370	370	444	444
Hydro	0	0	0	0	39	1,034	0	0	0	0	0	0	0
Minor Capital - Contracts	895	0	0	0	0	0	0	0	0	0	0	0	0
Minor Capital - Parts / Materials	372	0	0	0	0	0	0	0	0	0	0	0	0
Intake, Raw Watermain and Joint Transmission Mains										111,000	111,000	111,000	111,000
Water Treatment Plant										166,500	166,500	166,500	170,200
ASR										0	0	0	0
Total Administration (Operating)	4,169	10,191	8,465	7,024	17,726	7,189	3,568	12,056	12,284	349,798	349,946	350,390	354,164
Total Operating	4,169	10,191	8,465	7,024	17,726	7,189	3,568	12,056	12,284	349,798	349,946	350,390	354,164

Capital - Program Summary														
Description	G/L	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 YTD	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
Property Acquisition - Administration	7-6-28-9750-300	10,125	-3,011	8,290	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Contracts	7-6-28-9750-330	3,688	0	0	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Consulting	7-6-28-9750-331	4,865	0	0	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Equipment Res Charge Out	7-6-28-9750-800	101	547	0	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Parts Materials / Supplies	7-6-28-9750-450	888,407	0	0	0	0	0	0	0	0	0	0	0	0
Total Property Acquisition		907,185	-2,465	8,290	0	0	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Administration	7-6-28-9751-300	35,832	25,830	29,330	26,498	11,257	14,592	13,126	31,080	31,080	31,080	31,080	0	0
River Intake / Supply Mains - Contracts	7-6-28-9751-330	265	190	0	763	1,073	0	2,101,145	3,529,800	1,021,200	133,200	0	0	0
River Intake / Supply Mains - Engineering	7-6-28-9751-331	7,907	13,084	250,759	362,823	175,322	428,655	141,755	207,200	222,000	0	0	0	0
River Intake / Supply Mains - Legal	7-6-28-9751-332	0	0	0	0	1,178	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Advertising	7-6-28-9751-410	0	0	0	446	0	0	1,033	0	0	0	0	0	0
River Intake / Supply Mains - Meetings	7-6-28-9751-423	0	76	2,828	585	577	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Parts / Supplies	7-6-28-9751-450	2,237	288	746	328	362	0	424	0	0	0	0	0	0
River Intake / Supply Mains - Equip. Charge Out	7-6-28-9751-800	1,619	538	14	0	879	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Equip. Lease / Rent	7-6-28-9751-340	21	0	677	0	0	0	0	0	0	0	0	0	0
Joint Transmission Main - Contracts	7-6-28-9754-330	0	0	0	0	0	4,874	423,694	414,400	229,400	37,000	0	0	0
Joint Transmission Main - Consulting	7-6-28-9754-331	0	0	0	0	0	90,680	20,605	29,600	29,600	0	0	0	0
Joint Transmission Main - Administration	7-6-28-9754-300	0	0	0	0	0	0	5,374	0	0	0	0	0	0
Joint Transmission Main - Parts / Supplies	7-6-28-9754-450	0	0	0	0	0	0	52	0	0	0	0	0	0
Joint Transmission Main - Equip. Charge Out	7-6-28-9754-800	0	0	0	0	0	0	284	0	0	0	0	0	0
COP Transmission Main - Contracts	7-6-28-9755-330	0	0	0	0	0	9,717	358,965	3,030,000	2,720,000	100,000	0	0	0
COP Transmission Main - Consulting	7-6-28-9755-331	0	0	0	0	0	460,317	520	225,000	395,000	0	0	0	0
COP Transmission Main - Administration	7-6-28-9755-300	0	0	0	0	0	0	7,894	0	0	0	0	0	0
COP Transmission Main - Parts / Supplies	7-6-28-9755-450	0	0	0	0	0	0	194	0	0	0	0	0	0
RDN - Craig Bay Pump Station / Top Bridge Transmission												0		
Total River Intake / Supply Mains		47,880	40,006	284,354	391,442	190,648	1,008,835	3,075,067	7,467,080	4,648,280	301,280	31,080	0	0
Water Treatment - Administration	7-6-28-9752-300	17,399	32,779	30,352	24,860	12,455	40,102	19,577	31,080	31,080	31,080	31,080	0	0
Water Treatment - Travel	7-6-28-9752-307	0	0	4,751	0	0	0	0	0	0	0	0	0	0
Water Treatment - Contracts	7-6-28-9752-330	20,144	14,924	0	764	33,542	128,662	1,418,741	7,844,000	6,068,000	444,000	259,000	0	0
Water Treatment - Engineering	7-6-28-9752-331	58,444	91,582	94,344	362,823	119,362	1,029,560	401,828	458,800	555,000	0	0	0	0
Water Treatment - Equip. Lease / Rental	7-6-28-9752-340	6,702	16,982	0	0	0	14,846	0	0	0	0	0	0	0
Water Treatment - Rent & Lease	7-6-28-9752-345	666	1,195	0	0	0	0	0	0	0	0	0	0	0
Water Treatment - Insurance	7-6-28-9752-400	75	75	0	0	0	0	124,686	0	0	0	0	0	0
Water Treatment - Advertising	7-6-28-9752-410	0	0	0	446	378	370	0	0	0	0	0	0	0
Water Treatment - Meeting Costs	7-6-28-9752-423	0	0	0	585	0	0	0	0	0	0	0	0	0
Water Treatment - Parts and Materials	7-6-28-9752-450	1,301	388	0	328	2,059	13,855	3,632	0	0	0	0	0	0
Water Treatment - Courier	7-6-28-9752-452	0	452	0	0	359	1,310	0	0	0	0	0	0	0
Water Treatment - Equip Res Charge	7-6-28-9752-800	0	226	547	0	359	2,018	1,661	0	0	0	0	0	0
Water Treatment - Gas & Oil	7-6-28-9752-460	510	0	0	0	0	0	0	0	0	0	0	0	0
Water Treatment - Hydro	7-6-28-9752-461	0	0	0	0	409	1,598	0	0	0	0	0	0	0
Total Water Treatment		105,242	158,604	129,993	389,806	168,923	1,232,320	1,970,124	8,333,880	6,654,080	475,080	290,080	0	0

Capital - Program Summary														
Description	G/L	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 YTD	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
Aquifer Storage and Recovery - Administration	7-6-28-9753-300	0	35,495	50,930	31,263	7,561	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Contracts	7-6-28-9753-330	0	136,260	173,896	100,260	73,876	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Engineering	7-6-28-9753-331	18,061	195,318	169,658	95,263	9,792	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Equip Rental	7-6-28-9753-340	0	1,336	1,198	447	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Meeting Costs	7-6-28-9753-423	0	89	100	558	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Advertising	7-6-28-9753-410	0	0	446	0	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Parts / Materials	7-6-28-9753-450	0	7,023	100,954	4,361	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Small Tools	7-6-28-9753-451	0	0	4,316	29	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Courier	7-6-28-9753-452	0	0	0	119	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Hydro	7-6-28-9753-461	0	0	370	1,222	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Equip Res Charge Out	7-6-28-9753-800	0	1,173	5,846	1,544	228	0	0	0	0	0	0	0	0
Total Aquifer Storage and Recovery		18,061	376,694	507,267	235,513	91,458	0	0	0	0	0	0	0	0
Total Capital		1,078,368	572,839	929,905	1,016,761	451,028	2,241,155	5,045,191	15,800,960	11,302,360	776,360	321,160	0	0
TOTAL EXPENDITURES		1,082,538	583,030	938,370	1,023,785	468,754	2,248,343	5,048,758	15,813,016	11,314,644	1,126,158	671,106	350,390	354,164

TABLE 2
Regional District of Nanaimo Requisition - ERWS
2018 - 2022 FINANCIAL PLAN (\$)

	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 YTD	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
REVENUE													
Joint Venture Requisitions													
RDN Requisition (26%)	380,351	79,060	155,713	208,581	164,697	409,309	1,429,239	3,067,778	2,278,529	2,160,542	235,794	123,110	124,436
Other Revenue													
Grants - Small Communities Fund & CWWF	0	125,788	173,985	151,127	0	215,502	215,502	1,344,498	602,427	0	0	0	0
Transfer From Reserves	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Other Revenue	0	125,788	173,985	151,127	0	215,502	215,502	1,344,498	602,427	0	0	0	0
TOTAL REVENUE	380,351	204,848	329,698	359,708	164,697	624,811	1,644,741	4,412,276	2,880,956	2,160,542	235,794	123,110	124,436
EXPENDITURES													
Operating	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%
Administration (Operating)													
Salaries / Wages 7-2-28-7310-300	507	0	67	0	67	316	0	0	0	21,840	21,840	21,840	21,840
Training 7-2-28-7310-306	0	536	0	15	0	0	0	27	26	26	26	26	26
Conferences / Seminars 7-2-28-7310-307	0	261	0	0	0	0	0	0	0	0	0	0	0
Memberships 7-2-28-7310-311	0	71	78	0	0	0	0	0	0	0	0	0	0
Contracts 7-2-28-7310-330	423	195	1,328	473	0	0	0	530	546	546	572	572	598
Consulting 7-2-28-7310-331	66	0	0	122	0	0	0	0	0	0	0	0	0
Legal Fees 7-2-28-7310-332	0	675	0	0	891	0	0	0	928	962	988	1,014	1,014
Audit Fees 7-2-28-7310-333	0	1,085	1,066	1,066	1,066	1,014	1,014	1,950	2,002	1,144	1,144	1,170	1,170
Tel / Cable 7-2-28-7310-422	0	210	240	157	0	0	13	133	130	130	130	156	156
Meeting Costs 7-2-28-7310-423	2	124	158	332	494	317	0	323	338	416	416	442	442
Licences and Insurance 7-2-28-7310-400	0	0	0	0	230	435	215	133	130	130	130	156	156
Advertising 7-2-28-7310-410	0	0	0	199	2,959	0	0	53	52	52	52	52	52
Printing 7-2-28-7310-413	0	0	0	0	499	59	0	0	0	0	0	0	0
Courier 7-2-28-7310-452	0	0	0	11	8	0	0	27	26	26	26	26	26
Small Tools, Equipment & Furniture 7-2-28-7310-450	21	424	36	93	0	22	11	133	130	130	130	156	156
Hydro 7-2-28-7310-461	0	0	0	0	14	363	0	0	0	0	0	0	0
Minor Capital - Contracts 7-2-28-7350-330	314	0	0	0	0	0	0	0	0	0	0	0	0
Minor Capital - Parts / Materials 7-2-28-7350-450	131	0	0	0	0	0	0	0	0	0	0	0	0
Intake, Raw Watermain and Joint Transmission Mains										39,000	39,000	39,000	39,000
Water Treatment Plant										58,500	58,500	58,500	59,800
ASR										0	0	0	0
Total Administration (Operating)	1,465	3,581	2,974	2,468	6,228	2,526	1,253	4,236	4,316	122,902	122,954	123,110	124,436
Total Operating	1,465	3,581	2,974	2,468	6,228	2,526	1,253	4,236	4,316	122,902	122,954	123,110	124,436

Capital - Program Summary

Description	G/L	2011	2012	2013	2014	2015	2016	2017	2017	2018	2019	2020	2021	2022
		Actual	Actual	Actual	Actual	Actual	Actual	YTD	Budget	Budget	Budget	Budget	Budget	Budget
Property Acquisition - Administration	7-6-28-9750-300	3,558	-1,058	2,913	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Contracts	7-6-28-9750-330	1,296	0	0	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Consulting	7-6-28-9750-331	1,709	0	0	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Equipment Res Charge Out	7-6-28-9750-800	35	192	0	0	0	0	0	0	0	0	0	0	0
Property Acquisition - Parts Materials / Supplies	7-6-28-9750-450	312,143	0	0	0	0	0	0	0	0	0	0	0	0
Total Property Acquisition		318,741	-866	2,913	0	0	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Administration	7-6-28-9751-300	12,590	9,075	10,305	9,310	3,955	5,127	4,612	10,920	10,920	10,920	10,920	0	0
River Intake / Supply Mains - Contracts	7-6-28-9751-330	93	67	0	268	377	0	738,240	1,240,200	358,800	46,800	0	0	0
River Intake / Supply Mains - Engineering	7-6-28-9751-331	2,778	4,597	88,104	127,478	61,599	150,608	49,806	72,800	78,000	0	0	0	0
River Intake / Supply Mains - Legal	7-6-28-9751-332	0	0	0	0	414	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Advertising	7-6-28-9751-410	0	0	0	157	0	0	363	0	0	0	0	0	0
River Intake / Supply Mains - Meetings	7-6-28-9751-423	0	27	994	206	203	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Parts / Supplies	7-6-28-9751-450	786	101	262	115	127	0	149	0	0	0	0	0	0
River Intake / Supply Mains - Equip. Charge Out	7-6-28-9751-800	569	189	5	0	309	0	0	0	0	0	0	0	0
River Intake / Supply Mains - Equip. Lease / Rent	7-6-28-9751-340	7	0	238	0	0	0	0	0	0	0	0	0	0
Joint Transmission Main - Contracts	7-6-28-9754-330	0	0	0	0	0	1,712	148,866	145,600	80,600	13,000	0	0	0
Joint Transmission Main - Consulting	7-6-28-9754-331	0	0	0	0	0	31,860	7,240	10,400	10,400	0	0	0	0
Joint Transmission Main - Administration	7-6-28-9754-300	0	0	0	0	0	0	1,888	0	0	0	0	0	0
Joint Transmission Main - Parts / Supplies	7-6-28-9754-450	0	0	0	0	0	0	18	0	0	0	0	0	0
Joint Transmission Main - Equip. Charge Out	7-6-28-9754-800	0	0	0	0	0	0	100	0	0	0	0	0	0
COP Transmission Main - Contracts	7-6-28-9755-330	0	0	0	0	0	0	0	0	0	0	0	0	0
COP Transmission Main - Consulting	7-6-28-9755-331	0	0	0	0	0	0	0	0	0	0	0	0	0
COP Transmission Main - Administration	7-6-28-9755-300	0	0	0	0	0	0	0	0	0	0	0	0	0
COP Transmission Main - Parts / Supplies	7-6-28-9755-450	0	0	0	0	0	0	0	0	0	0	0	0	0
RDN - Craig Bay Pump Station / Top Bridge Transmission											1,800,000			
Total River Intake / Supply Mains		16,823	14,056	99,908	137,534	66,984	189,308	951,282	1,479,920	538,720	1,870,720	10,920	0	0
Water Treatment - Administration	7-6-28-9752-300	6,113	11,517	10,664	8,735	4,376	14,090	6,878	10,920	10,920	10,920	10,920	0	0
Water Treatment - Travel	7-6-28-9752-307	0	0	1,669	0	0	0	0	0	0	0	0	0	0
Water Treatment - Contracts	7-6-28-9752-330	7,078	5,244	0	268	11,785	45,206	498,477	2,756,000	2,132,000	156,000	91,000	0	0
Water Treatment - Engineering	7-6-28-9752-331	20,534	32,178	33,148	127,478	41,938	361,737	141,183	161,200	195,000	0	0	0	0
Water Treatment - Equip. Lease / Rental	7-6-28-9752-340	2,355	5,967	0	0	0	5,216	0	0	0	0	0	0	0
Water Treatment - Rent & Lease	7-6-28-9752-345	234	420	0	0	0	0	0	0	0	0	0	0	0
Water Treatment - Insurance	7-6-28-9752-400	26	26	0	0	0	0	43,809	0	0	0	0	0	0
Water Treatment - Advertising	7-6-28-9752-410	0	0	0	157	133	130	0	0	0	0	0	0	0
Water Treatment - Meeting Costs	7-6-28-9752-423	0	0	0	206	0	0	0	0	0	0	0	0	0
Water Treatment - Parts and Materials	7-6-28-9752-450	457	136	0	115	723	4,868	1,276	0	0	0	0	0	0
Water Treatment - Courier	7-6-28-9752-452	0	159	0	0	126	460	0	0	0	0	0	0	0
Water Treatment - Equip Res Charge	7-6-28-9752-800	0	79	192	0	126	709	583	0	0	0	0	0	0
Water Treatment - Gas & Oil	7-6-28-9752-460	179	0	0	0	0	0	0	0	0	0	0	0	0
Water Treatment - Hydro	7-6-28-9752-461					144	561	0						
Total Water Treatment		36,977	55,726	45,673	136,959	59,351	432,977	692,206	2,928,120	2,337,920	166,920	101,920	0	0

Capital - Program Summary

Description	G/L	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 Actual	2017 YTD	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	2022 Budget
Aquifer Storage and Recovery - Administration	7-6-28-9753-300	0	12,471	17,894	10,984	2,657	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Contracts	7-6-28-9753-330	0	47,875	61,099	35,226	25,957	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Engineering	7-6-28-9753-331	6,346	68,625	59,609	33,471	3,440	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Equip Rental	7-6-28-9753-340	0	470	421	157	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Meeting Costs	7-6-28-9753-423	0	31	35	196	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Advertising	7-6-28-9753-410	0	0	0	157	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Parts / Materials	7-6-28-9753-450	0	2,468	35,470	1,532	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Small Tools	7-6-28-9753-451	0	0	1,516	10	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Courier	7-6-28-9753-452	0	0	0	42	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Hydro	7-6-28-9753-461	0	0	130	429	0	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Equip Res Charge Out	7-6-28-9753-800	0	412	2,054	542	80	0	0	0	0	0	0	0	0
Total Aquifer Storage and Recovery		6,346	132,352	178,229	82,748	32,134	0	0	0	0	0	0	0	0
Total Capital		378,886	201,268	326,723	357,240	158,469	622,285	1,643,487	4,408,040	2,876,640	2,037,640	112,840	0	0
TOTAL EXPENDITURES		380,351	204,848	329,698	359,708	164,697	624,811	1,644,741	4,412,276	2,880,956	2,160,542	235,794	123,110	124,436