

#### ENGLISHMAN RIVER WATER SERVICE JOINT VENTURE MEETING OF THE MANAGEMENT BOARD

(Immediately following the Arrowsmith Water Service Management Board Regular Meeting)

> TUESDAY, November 1, 2016 9:30am – 10:30am

City of Parksville Forum 100 Jensen Avenue

#### AGENDA

PAGES

#### **CALL TO ORDER**

DELEGATIONS

#### MINUTES

3-4 Minutes of the Emergency Englishman River Water Service Management Board Meeting held May 10, 2016.

#### **BUSINESS ARISING FROM THE MINUTES**

#### COMMUNICATIONS/CORRESPONDENCE

- 5-11 DFO Fisheries Act Authorization, correspondence dated April 25, 2016.
- 12-12 Island Corridor Foundation Permission to Occupy Island Corridor Foundation Railway Right of Way correspondence dated May 10, 2016.
- 13-17 **Provincial Approval** Section 11 (2) Work in and About Englishman River correspondence dated August 12, 2016.

#### **UNFINISHED BUSINESS**

#### REPORTS

Request for Qualifications, Contract 1 – Intake, Water Treatment Plant, and Top Bridge Reservoir Transmission Main. (M. Squire – verbal)

Request for Qualifications, Contract 2 – Springwood Reservoir Transmission Main. (M. Squire – verbal)

Project Update. (M. Squire – verbal)

18-31 ERWS 2017 – 2021 Financial Plan (M. Squire – verbal/to be distributed).

#### ADDENDUM

**BUSINESS ARISING FROM DELEGATIONS OR COMMUNICATIONS** 

**NEW BUSINESS** 

**IN CAMERA** 

OTHER

NEXT MEETING

ADJOURNMENT

<u>Distribution</u>: J. Stanhope, B. Rogers, M. Lefebvre, S. Powell, M. Squire, B. Weir, R. Alexander

For Information:



#### MINUTES OF THE REGULAR MEETING OF THE ENGLISHMAN RIVER WATER SERVICE (ERWS) MANAGEMENT BOARD HELD ON TUESDAY, MAY 10, 2016 AT 10:00AM CITY OF PARKSVILLE FORUM

Present:	J. Stanhope, Chair B. Rogers R. Alexander M. Lefebvre	Regional District of Nanaimo Regional District of Nanaimo Regional District of Nanaimo City of Parksville
Also Present:	L. Butterworth D. Comis V. Figueria M. Squire B. Luchtmeijer B. Weir M. Donnelly W. Idema G. St. Pierre	City of Parksville City of Parksville City of Parksville City of Parksville Town of Qualicum Beach Town of Qualicum Beach Regional District of Nanaimo Regional District of Nanaimo

#### **Regrets:**

S. Powell

R. Graves

City of Parksville

**Recording Secretary, RDN** 

#### CALL TO ORDER

Meeting called to order at 10:25am.

#### DELEGATIONS

#### MINUTES

MOVED Director Lefebvre, SECONDED Director Rogers, that the minutes from the Englishman River Water Services Management Board held April 18, 2016, be adopted.

CARRIED

#### **BUSINESS ARISING FROM THE MINUTES**

#### COMMUNICATIONS/CORRESPONDENCE

DFO Fisheries Act Authorization, correspondence dated April 24, 2016.

MOVED Director Rogers, SECONDED Director Lefebvre, that the DFO *Fisheries Act* Authorization, correspondence dated April 24, 2016 be received.

CARRIED

#### ERWS Joint Venture Financial Statements Year Ended December 31, 2015.

MOVED Director Rogers, SECONDED Director Lefebvre, that the ERWS Joint Venture Draft Financial Statement be received and approved.

CARRIED

#### **ERWS Joint Venture Agreement Extension Report**

MOVED Director Rogers, SECONDED Director Lefebvre, that the Englishman River Water Service Management Board direct staff to prepare documents to renew the Englishman River Water Service Joint Venture Agreement and forward to the Joint Venture Partners for consideration.

CARRIED

#### **BUSINESS ARISING FROM DELEGATIONS OR COMMUNICATIONS**

**NEW BUSINESS** 

OTHER

#### QUESTIONS

The Chair opened the floor to questions and comments, none received.

IN CAMERA

OTHER

NEXT MEETING

ADJOURNMENT

MOVED Director Lefebvre, SECONDED Director Rogers, that the meeting be adjourned.

CARRIED

M. Lefebrve, Chairperson

HUS-UC



## Fisheries and Oceans Canada

Regional Director General 200 - 401 Burrard Street Vancouver, British Columbia V6C 3S4 Pêches et Océans Canada Région du Pacifique Pièce 200 - 401 rue Burrard Vancouver (C.-B.) V6C 3S4

Your file Votr

Votre référence

Our file Notre référence 15-HPAC-00781

#### APR 2 5 2016

Mr. Mike Squire Arrowsmith Water Service 1116 Herring Gull Way Parksville, B.C. V9P 1R2

Dear Mr. Squire:

Subject: Fisheries Act Authorization

Pursuant to paragraph 35(2)(b) of the *Fisheries Act*, the Minister of Fisheries and Oceans Canada (DFO) authorizes the carrying on of your proposed work, undertaking or activity that results in serious harm to fish arising from operations of your Englishman River water intake project. A paragraph 35(2)(b) *Fisheries Act* authorization is attached.

Failure to comply with any of the terms or conditions of the attached Authorization may lead to prosecution under the *Fisheries Act*.

A copy of this Authorization should be kept on site during operations of your Englishman River water intake project and upon request be provided to relevant federal or provincial officials. Work or operational crews should be familiar with, and able to adhere to, the conditions.

For proposed works, undertakings or activities associated with construction of the project, DFO can confirm that a *Fisheries Act* authorization is not required given that serious harm to fish can be avoided by implementing all of those measures and standards to avoid and mitigate serious harm to fish resulting from construction outlined in Section 5.4.1 of the "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River" prepared by LGL Limited environmental research associates and Kerr Wood Leidal Associates Ltd., dated July 2015. In order to comply with the *Fisheries Act*, it is also recommended that you follow our guidance tools which can be found at the following website (http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/index-eng.html). It remains your responsibility to meet the requirements of other federal, provincial and municipal agencies.



If you or anyone conducting work on your behalf has any questions, please contact Herb Klassen at our Vancouver office at 604-202-0258, or by email at <u>Herbert.Klassen@dfo-mpo.gc.ca</u>.

Yours sincerely,

nf L

Rebecca Reid Regional Director General

cc: Brian Naito, Fisheries and Oceans Canada

ATTACHMENT: AUTHORIZATION

FRWS- LIC

Fisheries and OceansPêches et OcéansCanadaCanada

#### AUTHORIZATION No.: 15-HPAC-00781

#### PARAGRAPH 35(2)(b) FISHERIES ACT AUTHORIZATION

#### Authorization issued to

Arrowsmith Water Service (hereafter referred to as the "Proponent")

Attention to: Mr Mike Squire 1116 Herring Gull Way Parksville, BC V9P 1R2

#### **Location of Proposed Project**

The proposed Englishman River water intake (the "Project") is situated on the right bank of Englishman River immediately upstream of the Highway 19 bridge over Englishman River.

Nearest community (city, town, village): Province: Name of watercourse, waterbody: Longitude and latitude, UTM Coordinates: Parksville British Columbia Englishman River Intake at 49° 18'00 N 124°16'22 W

#### **Description of Proposed Project**

The proposed project of which the work, undertaking or activity authorized is a part involves:

Operation of a screened river intake structure on the right bank of Englishman River that replaces an existing buried well screen infiltration gallery intake on Englishman River and which supplements the municipal water supply system. The proposed intake and pump capacity would enable a daily water withdrawal up to a maximum rate of 28.8 ML/d (peaking at 0.33 m<sup>3</sup>/sec).

# Description of Authorized work(s), undertaking(s) or activity(ies) likely to result in serious harm to fish

The work(s), undertaking(s), or activity(ies) associated with the proposed project described above, that are likely to result in serious harm to fish, are:

Withdrawal of flows up to 0.33 m<sup>3</sup>/sec from the Englishman River through the intake and pumping facilities.

## The serious harm to fish likely to result from the proposed work(s), undertaking(s), or activity(ies), and covered by this authorization includes:

1. Increased and relocated withdrawal of water from Englishman River is expected to change the velocity and depth downstream of the Project, reducing the steelhead summer parr rearing values in riffle habitats by up to 913 m<sup>2</sup> Weighted Useable Area corresponding to residual flows from maximum instantaneous withdrawals of 0.33 m<sup>3</sup>/s under 10-year drought flow regime in August, as represented by flows of 0.89 m<sup>3</sup>/s measured at the Englishman River Water Survey of Canada gauge, and in glide habitats losses of 1,337 m<sup>2</sup> Weighted Useable Area in August corresponding to mean daily flows of 0.89 m<sup>3</sup>/s at the Englishman River Water Survey of Canada gauge.

# Canada

- 2. Increased and relocated withdrawal of water from Englishman River is expected to change the velocity and depth downstream of the Project reducing chinook summer fry rearing values in riffle habitats by up to 1,359 m<sup>2</sup> Weighted Useable Area corresponding to residual flows from maximum instantaneous withdrawals of 0.33 m<sup>3</sup>/s under 10-year drought flow regime in August, as represented by flows of 0.89 m<sup>3</sup>/s measured at the Englishman River Water Survey of Canada gauge, and in glide habitats losses of 1,948 m<sup>2</sup> Weighted Useable Area in August corresponding to mean daily flows of 0.89 m<sup>3</sup>/s at the Englishman River Water Survey of Canada gauge.
- 3. Increased and relocated withdrawal of water from Englishman River is expected to change the velocity and depth downstream of the Project reducing coho summer fry rearing values in glide habitats by up to 481 m<sup>2</sup> Weighted Useable Area corresponding to residual flows from maximum instantaneous withdrawals of 0.33 m<sup>3</sup>/s under 10-year drought flow regime in August, as represented by flows of 0.89 m<sup>3</sup>/s measured at the Englishman River Water Survey of Canada gauge.
- 4. Increased and relocated withdrawal of water from Englishman River is expected to change the velocity and depth downstream of the Project reducing steelhead spawning values in glide habitats by up to 420 m<sup>2</sup> Weighted Useable Area corresponding to residual flows from maximum instantaneous withdrawals of 0.33 m<sup>3</sup>/s under 2-year drought flow regime in July, as represented by flows of 1.69 m<sup>3</sup>/s measured at the Englishman River Water Survey of Canada gauge.

#### **Conditions of Authorization**

The above described work, undertaking or activity that is likely to result in serious harm to fish must be carried on in accordance with the following conditions.

1. Conditions that relate to the period during which the work, undertaking or activity that will result in serious harm to fish can be carried on

The work, undertaking or activity that results in serious harm to fish is authorized to be carried on during the following period:

- From: Date of Issuance for the life of the project

Fisheries and Oceans Canada (DFO) may, where appropriate, provide written notice that the period to carry on the work, undertaking or activity has been extended.

The periods during which other conditions of this authorization must be complied with are provided in their respective sections below. DFO may, where appropriate, provide written notice that these periods have been extended, in order to correspond to the extension of the period to carry on a work, undertaking, or activity.

#### 2. Conditions that relate to measures and standards to avoid and mitigate serious harm to fish

- 2.1 All measures and standards to avoid and mitigate serious harm to fish outlined in section 5.4.2 of the following document shall be implemented:
  - 2.1.1 "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River" prepared by LGL Limited environmental research associates and Kerr Wood Leidal Associates Ltd, dated July 2015.

- 2.2 Contingency measures: Contingency measures to avoid and mitigate serious harm to fish shall be implemented if monitoring required in Section 3 of this Authorization indicates that the measures and standards to avoid and mitigate serious harm to fish are not successful. Contingency measures to be implemented include, but are not limited to, upgraded intake grate maintenance if monitoring indicates fish impingement on the screen and application of more conservative water use restrictions and/or effective water storage schemes if water withdrawal rates approach intake capacities of 0.33 m<sup>3</sup>/s.
- 2.3 Dates by which these measures and standards shall be implemented: installation of a fish exclusion screen for the intake which shall be completed prior to initial flow diversion and commissioning.
- 3. Conditions that relate to monitoring and reporting of measures and standards to avoid and mitigate serious harm to fish
- 3.1 Demonstration of effective implementation and functioning of measures during operations: This shall be done, by:
  - Once operation of the authorized works, undertakings or activities has commenced, the Proponent shall implement a 5-year Monitoring Plan in keeping with Section 5.8 of "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River", by LGL Limited environmental research associates and Kerr Wood Leidal Associates Ltd., dated July 2015, attached as Schedule 1, for effectiveness monitoring and reporting to demonstrate whether measures and standards to avoid and mitigate serious harm to fish were conducted according to the conditions of this Authorization.
  - Providing annual reports including the compliance of operations with the prescribed flow releases from Arrowsmith Dam, operational flows, residual flows after withdrawals, and ramping rates. Reports shall be submitted to DFO in .pdf version by 31 March after each successive year the Project is operating. The reports shall include daily data, incidents of non-conformance to flow releases and flow ramping excursions that have occurred over the year. These reports also shall provide interpretations of biological implications for any incidents involving flow ramping excursions and instream flow releases, and summaries of Section 38 *Fisheries Act* notifications to DFO concerning risks of serious harm.
  - Reporting to DFO on the effectiveness of the Project's mitigation measures in avoiding significant
    adverse effects on valued environmental components related to fish and fish habitat, in keeping with
    "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River", by LGL Limited
    environmental research associates and Kerr Wood Leidal Associates Ltd., dated July 2015, attached
    as Schedule 1.
  - 3.1.1 Annual reports for years 1, 2, 3, and 4 shall be provided to DFO by 31 March in 2018, 2019, 2020 and 2021, or in years or dates as otherwise agreed to by DFO. Selection of the fifth year of study shall be in consultation with DFO, with the report provided to DFO by 31 March the following year.
- 3.2 All monitoring reports or results shall be submitted to <u>referralspacific@dfo-mpo.gc.ca</u>, Fisheries Protection Program, Ecosystems Management Branch, DFO, 200-401 Burrard St., Vancouver, BC, V6C 3S4 and refer to file #15-HPAC-00781.

## 4. Conditions that relate to the offsetting of the serious harm to fish likely to result from the authorized work, undertaking or activity

- 4.1 Letter of credit: A letter of credit of \$167,000 (for offsetting and monitoring) has been submitted to DFO. DFO may draw upon funds set aside by the Proponent through the letter of credit to cover the costs of implementing the offsetting measures required under this authorization including the associated monitoring and reporting measures.
- 4.2 The \$167,000 letter of credit shall be released to the Proponent upon receipt of the required reports of the 5-year Monitoring Program as described in Section 5.8 of "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River", by LGL Limited environmental research associates and Kerr Wood

Leidal Associates Ltd., dated July 2015, attached as Schedule 1, and offsetting measures are shown to be functioning as per the criteria in condition 4.4 as confirmed by DFO.

4.3 Scale and description of offsetting measures: The offsetting measures comprise of flow releases from Arrowsmith Reservoir as described in Section 5.6.1, as well as instream boulder placement as described in 5.6.2 of "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River", by LGL Limited environmental research associates and Kerr Wood Leidal Associates Ltd., dated July 2015, attached as Schedule 1.

4.4 Installation of boulder clusters shall be completed prior to completion of intake construction.

- 4.5 Criteria to assess the implementation and effectiveness of the offsetting measures: The fish habitat offsetting measures shall be assessed whether supplemental fish protection flows released and boulder habitats constructed as per Section 5.6 of "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River", by LGL Limited environmental research associates and Kerr Wood Leidal Associates Ltd., dated July 2015, attached as Schedule 1 are functioning-as-intended if:
  - analysis of habitat data collected as part of the 5-year Monitoring Programs described in 3.1 demonstrate net gains of steelhead, chinook, and coho habitat values as measured through Weighted Useable Area and wetted habitat area relative to pre-project conditions, as confirmed by DFO.
  - the boulder placements are determined through the 5-year Monitoring Program as described in 3.1 to be physically stable, as confirmed by DFO.
- 4.6 The Proponent shall maintain the offsetting measures as described in 4.3 in a state of functioning-asintended for the life of the project.
- 4.7 Contingency measures: Should the 5-year Monitoring Program undertaken as required under Condition 3.2 indicate that offsetting measures are not functioning as intended, then:
  - 4.7.1 the Proponent shall design and implement supplementary mitigation and/or offsetting measures as may be required by DFO in the amount equivalent to the magnitude of the reduction. These may involve large woody debris placements as discussed in Section 5.7 of "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River", by LGL Limited environmental research associates and Kerr Wood Leidal Associates Ltd., dated July 2015, attached as Schedule 1. If, at any time during the 5-year Monitoring Program, the Proponent becomes aware that the offsetting measures are not functioning as intended, the Proponent shall carry out works and additional monitoring that are necessary, as determined by DFO, to ensure that the offsetting measures are functioning as designed, or
  - 4.7.2 the Proponent shall propose alternative offsetting measures to achieve the overall objective of the offsetting measures as confirmed by DFO.
- 4.8 The Proponent shall not carry on any work, undertaking or activity that will adversely disturb or impact the offsetting measures.
- 5. Conditions that relate to monitoring and reporting of implementation of offsetting measures (described above in section 4):
- 5.1 Schedule(s) and criteria: The Proponent shall conduct monitoring of the implementation of offsetting measures according to criteria in Section 5.8 of "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River", by LGL Limited environmental research associates and Kerr Wood Leidal Associates Ltd., dated July 2015, attached as Schedule 1.
- 5.2 List of reports to be provided to DFO: The Proponent shall report to DFO on whether the offsetting measures were conducted according to the conditions of this authorization by providing the following:
  - 5.2.1 Annual reports of data collected in years 1 through 4, and a fifth report of data collected in a period when mean daily flow exceedances are observed at >90% measured at the Water

Survey of Canada Englishman River gauge during the Critical Period Streamflow (<  $1.0 \text{ m}^3$ /s in July; < $1.0 \text{ m}^3$ /s in August; < $1.0 \text{ m}^3$ /s in September; or < $0.9 \text{ m}^3$ /s in October; i.e. the equivalent of a constant 28.8 ML/d water withdrawal during a 10-year drought) as described in Section 5.8 of "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River", by LGL Limited environmental research associates and Kerr Wood Leidal Associates Ltd., dated July 2015, attached as Schedule 1. Annual reports for years 1, 2, 3, and 4 shall be provided to DFO by 31 March in 2018, 2019, 2020 and 2021, or in years or dates as otherwise agreed to by DFO. Selection of the fifth year of study shall be in consultation with DFO, with the report provided to DFO by 31 March the following year.

#### **Authorization Limitations and Application Conditions**

The Proponent is solely responsible for plans and specifications relating to this authorization and for all design, safety and workmanship aspects of all the works associated with this authorization.

The holder of this authorization is hereby authorized under the authority of Paragraph 35(2)(b) of the *Fisheries Act.* R.S.C., 1985, c.F. 14 to carry on the work(s), undertaking(s) and/or activity(ies) that are likely to result in serious harm to fish as described herein. This authorization does not purport to release the applicant from any obligation to obtain permission from or to comply with the requirements of any other regulatory agencies.

This authorization does <u>not</u> permit the deposit of a deleterious substance in water frequented by fish. Subsection 36(3) of the *Fisheries Act* prohibits the deposit of any deleterious substances into waters frequented by fish unless authorized by regulations made by Governor in Council.

This authorization does not permit the killing, harming, harassment, capture or taking of individuals of any aquatic species listed under the *Species at Risk Act* (SARA) (s. 32 of the SARA), or the damage or destruction of residence of individuals of such species (s. 33 of the SARA) or the destruction of the critical habitat of any such species (s. 58 of the SARA).]

The failure to comply with any condition of this authorization constitutes an offence under Paragraph 40(3)(a) of the *Fisheries Act* and may result in charges being laid under the *Fisheries Act*. This authorization must be held on site and work crews must be made familiar with the conditions attached.

This authorization cannot be transferred or assigned to another party. If the work(s), undertaking(s) or activity(ies) authorized to be conducted pursuant to this authorization are expected to be sold or transferred, or other circumstances arise that are expected to result in a new Proponent taking over the work(s), undertaking(s) or activity(ies), the Proponent named in this authorization shall advise DFO in advance.

Date of Issuance:

APR 2 5 2016

Approved by:

Rebecca Reid

Regional Director General, Pacific Region Fisheries and Oceans Canada

Schedules:

Schedule 1 – "Fish Habitat Offsetting Plan for Bulk Water Supply Intake in Englishman River", by LGL Limited environmental research associates and Kerr Wood Leidal Associates Ltd., dated July 2015.

FILE EZWS-DET.

320-256 WALLACE NANAIMO, BC, V9R 5B3

CITY OF PARKSVILLE

# MAY 1 0 2016

OPERATIONS

TELEPHONE 250.714.3628

Island Corridor Foundation PO 375 Station A Nanaimo, BC V9R 5L3

Mr. Mike Squire AScT Director of Operations Englishman River Water Service 1116 Herring Gull Way Parksville, BC V9P 1R2

FOUNDATION islandcorridorfoundation.ca

RE: Letter of Permission to Occupy Island Corridor Foundation Railway Right of Way

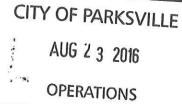
Dear Mr. Mike Squire AScT:

We understand that the Englishman River Water Service (ERWS) is proposing to construct a new, larger water intake, a new water treatment plant, and a new water distribution system on and around the Englishman River. We also understand that the proposed new water transmission system will include a pipeline crossing of the Englishman River within the Island Corridor Foundation railway right-of-way (ROW) approximately 100 m downstream of the Highway 19 overpass.

The Island Corridor Foundation provides consent in principal for ERWS to occupy the railway ROW for the proposed pipeline crossing and conduct the investigations required for the design of the crossing. Formal approval to occupy the ROW will be provided upon review and acceptance of detailed design drawings for the river crossing. Yours truly,

Graham Bruce Chief Executive Office Island Corridor Foundation

5600-15-ERWS-416



BRITISH COLUMBIA

August 12, 2016

File: 76910-20/1003422

Mike Squire of Englishman River Water Service 1116 Herring Gull Way Parksville BC V9P 1R2

Email: msquire@parksville.ca

Dear Mike Squire:

# Re: Change Approval under Section 11 (2) (a), *Water Sustainability Act*, for Work In and About Englishman River

Approval under Section 11 of the *Water Sustainability Act* for changes in and about Englishman River is hereby granted. The approval document is enclosed. Please make careful note of all its conditions.

Several water licences exist downstream of the proposed work on the Englishman River. These have purposes ranging from domestic to water works provider. In consideration of these water rights holders, a condition of this approval will be the notification of each licence holder by the applicant. Please see the attached listing of the water licences and their associated contact information. In the event of an incident during construction, the same licence holders must be contacted immediately while you or your contractors actively work to mitigate any water quality problems.

An environmental monitor must be onsite during all instream work activities.

Please note that this Approval, under Section 11 of the *Water Sustainability Act*, does not include fish habitat concerns and issues under the *Federal Fisheries Act*. A separate authorization process may be required under the *Federal Fisheries Act*.

Any planned cutting of timber must be accompanied by a cutting authority issued through the South Island Natural Resource District.

West Coast Natural Resource Region

An appeal to this order may be taken only as directed within Section 105 of the *Water Sustainability Act*. Notice of any appeal must: (1) be in writing; (2) be delivered within 30 days of the date of this letter; (3) include grounds for the appeal; (4) be accompanied by a fee of \$25.00 (cheque or money order payable to Minister of Finance); and (5) be sent by registered mail to the Chair, Environmental Appeal Board, PO Box 9425, Stn Prov Govt, Victoria BC V8W 9V1; or personally delivered to the office of the Board on the 4th Floor, 747 Fort Street, Victoria BC V8W 3E9.

If you have any questions or concerns regarding the document issued, please do not hesitate to contact Aaron Smeeth, Licensed Authorizations Officer - Water at 250 751-7033 or <u>Aaron.smeeth@gov.bc.ca</u>.

Yours truly,

David Robinson Assistant Water Manager

Enclosure: Approval Document Downstream Water Licence Holder List

cc: Patrick Ledford Lilley, Kerr Wood Leidel Engineering Consultants, plilley@kwl.ca



Water Sustainability Act

# APPROVAL CHANGES IN AND ABOUT A STREAM Section 11 (2), Clause (a)

constitute permission or consent under any other Act or authority. This approval grants authority under Section 11 of the Water Sustainability Act only, and does not

Plan VIP6444, Lot 1 at the coordinates 49.3011000, -124.2756000. and about Englishman River at a location best described as E&N Railway Right-of-Way Block 1494, Mike Squire of Englishman River Water Service is hereby authorized to make the following changes in

# Changes proposed:

year's pipeline installation). Stream bed investigation using an auger and excavator (investigation research intended for subsequent

# APPROVAL CONDITIONS AND SPECIFICATIONS

- .\_\_\_\_\_ The work authorized under this Approval shall be completed on or before September 15, 2016.
- 2 work in the stream outside this period is to be confirmed with the Regional Ecosystems Biologist, Ministry of Forests, Lands and Natural Resource Operations (FLNR) and Fisheries and Oceans In-stream work shall be undertaken only during the period of June 15th to September 15th Canada office. Any
- $\dot{\omega}$ Treatment Plant and Supply Mains" by Kerr Wood Leidel Biologists (dated May 13, 2016). All works are to be constructed in accordance with the Project Report "ERWS Water Intake
- 4 substance or a significant turbidity/sediment increase resulting from your work, the Licence holders providing an alternate source of water for their uses, for the duration of instream work. Depending on the use and feedback from the water licence holders, the applicant may consider must be notified immediately while the applicant attempts to mitigate the circumstances on the Englishman River, downstream of the proposed work. In the event of a spill of hazardous Prior to initiating work, the applicant must notify the existing water rights holders who hold rights
- 5 The applicant must apply for a Fish Collection Permit well ahead of planned work in stream.
- 5 Any felling of trees will require a cutting authority through the South Island Natural Resource District.
- 7. necessary in order to prevent harm to fish, fish habitat or water quality. instream construction activities. The environmental monitor will direct work to be stopped if The applicant must ensure that a suitably qualified environmental monitor is on site during all
- 8 Machinery shall be in good mechanical condition such that there is no leakage of substances, deleterious to fish, into the stream.
- nd omill m nian must be available at the work sit



Water Sustainability Act

- 14. Every holder of an approval, or person who makes a change in and about a stream in accordance with the regulations, shall exercise reasonable care to avoid damaging land, works, trees, or other property; and shall make full compensation to the owners for damage or loss resulting from construction, maintenance, use, operation, or failure of the works.
- 15. During the works phase, the change in and about a stream must be designed, constructed, and maintained in such a manner that the change does not pose a significant danger to life, property, or the environment. Subsequent to work completion, the stream channel must be left as it was found, in a stable condition
- 16. The applicant must, while making the change in and about the stream:
- maintain water quality;
- maintain stream channel integrity;
- (g) (f) (f) (f) (f) (g) maintain surface and sub-surface drainage systems and flows;
- conserve wildlife habitat, including riparian vegetation;
  - protect fish habitat and fish passage
- prevent erosion, mass wasting, siltation; and
- under the Water Sustainability Act. prevent degradation to water quality at the intake of existing water supplies authorized

Digitally signed by David Robinson DN: cn=David Robinson, o=FLNRO, ou=Authorizations, email=david.robinson@gov.bc.ca

Date: 2016.08.12 16:04:04 -07'00'

Assistant Water Manager

David Robinson

Approval No.:

Issued Date:

August 12, 2016

Water District:

Nanaimo

1003422

Precinct:

Nanaimo

σ a g e | 2

Licence Type
Domestic
Comm. Enterprise
Comm. Enterprise
Domestic
Waterworks: Water Delivery
Waterworks: Local Provider
Waterworks: Local Provider
Waterworks: Local Provider
Stream Storage: Non-Power
Waterworks: Local Provider
Domestic
Domestic

Name	Richard A Elkie	Dale and Peggy Green	Dale and Peggy Green	Wiegand G Dyck	Robert Majewski	Karen A Easton	Issachar and Fiona Auerbach	C Irene Cormie	0724481 BC Ltd	0724481 BC Ltd	Joan and Andrew Sturrock	Fyfe Holdings Ltd	City of Parksville	City of Parksville	City of Parksville	Arrowsmith Water Service	Arrowsmith Water Service	Gordon and Brenda Vaughan	<b>Richars and Lorraine Fuller</b>	
Licence #	C059703	C037976	C064079	C037975	C052934	C038418	C039684	F015340	C024281	C042793	C117877	C045309	C023297	C022058	C026692	C129710	C129710	C100831	C059692	

Email	NA	NA	NA	NA	seagone@telus.net	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	Darrell Decker?	NA
Phone	NA	NA	NA	NA	250-607-7089	NA	250-248-8224	NA	250-248-3134	250-248-3134	NA	NA	250-248-6144	250-248-6144	250-248-6144	250-248-6144	250-248-6144	NA	NA



DATE: October 27, 2016

REPORT TO: ENGLISHMAN RIVER WATER SERVICE MANAGEMENT BOARD

FROM: ENGLISHMAN RIVER WATER SERVICE MANAGEMENT COMMITTEE

SUBJECT: ENGLISHMAN RIVER WATER SERVICE (ERWS) 2017 - 2021 FINANCIAL PLAN

PURPOSE: ADOPTION OF THE ERWS 2017 - 2021 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. The proposed capital budget is based on a firm membrane filtration treatment capacity of 16 million liters per day.

The ERWS 2017 - 2021 Financial Plan reflects unspent funds from 2016 that are required to be added to the year 2017 budget to account for ongoing consulting and capital works carrying over into year 2017. The ERWS 2017 - 2021 Financial Plan also reallocates funds accordingly to reflect the current detailed design cost estimate prepared by CH2M Hill.

#### **RECOMMENDATION(S)**:

- 1. THAT the report from the Englishman River Water Service Management Committee, dated October 27, 2016, entitled ERWS 2017 2021 Financial Plan be received;
- 2. AND THAT the Englishman River Water Service Management Board accept the 2017 2021 Financial Plan as outlined in Table 1 attached to the October 27, 2016 report;
- 3. AND THAT the Englishman River Water Service Management Board recommend the Joint Ventures adopt their portion of the 2017 2021 Financial Plan as outlined in Table 2 attached to the October 27, 2016 report.

#### BACKGROUND:

Table 1 outlines the detailed total ERWS project cost and Table 2 references each jurisdiction's share to take forward to each respected Council / Board for ratification.

With the formation of the Englishman River Water Service and further advancement of the Capital Plan to the detailed design stage, the 2017 - 2021 Financial Plan was reviewed and updated in an effort to outline potential anticipated funding requirements for operations and capital expenditures for the next five years.

It was determined that unspent funds from 2016 are required to be added to the 2017 - 2021 Financial Plan to account for works carried forward into year 2017. Unspent budget items in year 2016 are required to be transferred to year 2017 in order to finalize all tasks and keep the project on schedule. Being that the ERWS is a joint venture partnership; no formal governance is in place to carry forward funds from the current year into future year budgets as the ERWS is only funded by the partners for actual funds spent. Therefore, an increase in the 2017 budget is required to reflect an estimate of the unspent amounts and to reflect the amounts actually needed for 2017. Additionally, separate account numbers have been assigned to each jurisdiction's transmission main projects in an effort to track and attribute expenses to each project accordingly.

The proposed budget adjustments required to the 2017 - 2021 Financial Plan account for an overall increase of approximately 13 % compared to last year and the following tables summarizes the changes:

Water Treatment, Intake & Transmission Mains	Preliminary Design Cost Estimate - December 9, 2015 (Not including Professional Services)	2016 - 2020 Final Budget April 18, 2016	2017- 2021 Provisional Budget	Budget Difference
Water Treatment Plant	15,210,000	16,040,900	18,990,000	(2,949,100)
River Intake / Raw Water Supply Main	4,530,000	5,400,000	6,810,000	(1,410,000)
Springwood Transmission Main	6,190,000	6,300,000	5,700,000	600,000
ERWS Joint Transmission Mains	890,000	1,043,700	1,000,000	43,700
Total:	26,820,000	28,784,600	32,500,000	(3,715,400)

Table 1 - ERWS

#### Table 2 - CoP Allocation

Water Treatment, Intake & Transmission Mains	Preliminary Design Cost Estimate - December 9, 2015 (Not including Professional Services)	2016 - 2020 Final Budget April 18, 2016	2017- 2021 Provisional Budget	Budget Difference
Water Treatment Plant	11,255,400	11,870,266	14,052,600	(2,182,334)
River Intake / Raw Water Supply Main	3,352,200	3,996,000	5,039,400	(1,043,400)
Springwood Transmission Main	6,190,000	6,300,000	5,700,000	600,000
ERWS Joint Transmission Mains	658,600	772,338	740,000	32,338
Total:	21,456,200	22,938,604	25,532,000	(2,593,396)

#### Table 2 - RDN Allocation

Water Treatment, Intake & Transmission Mains	Preliminary Design Cost Estimate - December 9, 2015 (Not including Professional Services)	2016 - 2020 Final Budget April 18, 2016	2017- 2021 Provisional Budget	Budget Difference
Water Treatment Plant	3,954,600	4,170,634	4,937,400	(766,766)
River Intake / Raw Water Supply Main	1,177,800	1,404,000	1,770,600	(366,600)
Springwood Transmission Main	0	0	0	0
ERWS Joint Transmission Mains	231,400	271,362	260,000	11,362
Total:	5,363,800	5,845,996	6,968,000	(1,122,004)

A constructability review was undertaken on the tender package from the construction branch of CH2M with the intention to identify high, medium and low priority issues that may result in extra costs. This constructability review was prepared prior to tendering to ensure that the tender package has been thoroughly reviewed with consideration and mitigation of issues that may be considered by a contractor as part of bidding on the tender package. As a result of the review, design and specifications have been revised and a 4 % escalation and 5 % contingency have also been allotted to account for any unknown risks or construction restraints resulting in additional potential increased costs.

The project also went through a Value Engineering (VE) exercise which resulted in a potential provisional cost savings of over \$ 5 million.

The 2017 - 2021 budget includes additions to the project scope of work resulting in potential extra costs. The additional items are summarized below:

#### Water Treatment Plant:

- The addition of Fire Suppression requirements in order to be in conformance with the City of Parksville Bylaw No. 1387.
- The addition of Secondary Membrane Treatment from backwash of Primary membranes. This will allow the water treatment plant to reduce the waste to the sanitary sewer and increase the filtered water production from 95 % to 99.3 %. Although this has upfront initial additional capital costs, this will reduce the amount of waste and therefore reduce the annual operating costs to the City of Parksville's sanitary sewer collection system and the French Creek Pollution Control Centre.
- As a result of the secondary membranes, potential additional water treatment requirements may be imposed by Island Health. The Construction Permit to Island Health was submitted on August 25, 2016 and to date we have not heard back from Island Health. In an effort to keep the project on schedule, we are proceeding with the project and have started the tendering process on October 20, 2016.
- Local Cost factor increase for labour costs of concrete supply and install (approximately 30 % more).
- Additional Proof piloting of the selected membrane vendor resulted in additional costs to determine sand separation requirements.

#### <u>River Intake / Raw Water Supply Main:</u>

- Further consultation with DFO resulted in the removal of the concreate weir and resulted in an increase in overall size of the river intake.
- Proof piloting determined a requirement for overall sand separation and grit removal. It was determined that locating the majority of the sand separation to occur at the river intake to the raw water as opposed to at the treatment plant would result in less waste going into the sanitary sewer system. This initial capital upgrade improvement would result in better membrane filter performance and less long term operating cost to the sanitary sewer and treatment systems.

#### Engineering Services Costs:

- Additional costs for alternate transmission alignment reviews and reports.
- Additional costs to review reduced scale water treatment and project phasing.
- Further geotechnical evaluations were required as a result of potential unfavorable ground conditions, bank assessments and rock excavation.
- Further Archeological investigations and costs associated with involvement with First Nation consultation and permitting requirements.

#### Other Costs:

- Development Cost Charges (DCC) payable to the City of Parksville and the Regional District of Nanaimo
- Waste Discharge Permit application Regional District of Nanaimo Fees
- A budget increase for both capital and operating allowance of \$ 400,000 has been allotted for this.

A 2017 - 2021 Financial Plan has been prepared for consideration by the ERWS Management Board. The proposed budget is shown on Table 1, attached.

#### OPTIONS:

- 1. Accept the ERWS 2017 2021 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 October 2018.

#### Option 2

The 2017 - 2021 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.

Years 2017 to 2021 in the Financial Plan show substantial capital to carry out the construction of the new water intake and water treatment facility. Funds for such projects are currently available in both the City of Parksville and the Regional District of Nanaimo surplus reserve accounts and authorized long-term borrowing. The ERWS has received \$6 million in funding from senior government that will help augment these costs. The additional funds to account for the 13 % increase are available through GAS Tax funding.

The ERWS 2017 - 2021 Financial Plan sets out the financial requirements needed for the ERWS staff to carry out the project for the next several years. Without this plan the capital projects and predesign activities would be delayed or halted due to insufficient funds or potentially funded through future grants.

#### **REFERENCES**:

April 8, 2012 report from the Englishman River Water Service Management Committee to the Englishman River Management Board regarding the ERWS Project Implementation Strategy.

March 12, 2015 report from Englishman River Water Service Management Committee to the Englishman River Management Board providing an update regarding the Department of Fisheries and Oceans Canada position on the proposed new intake on the Englishman River.

November 13, 2014 report from Englishman River Water Service Management Committee to the Englishman River Management Board regarding ERWS Water Intake and Treatment Plant Phasing Options.

November 8, 2014 report from City of Parksville Chief Administrative Officer to Mayor and Council regarding ERWS Water Intake and Treatment Plant Options.

June 23, 2014 report from City of Parksville Chief Administrative Officer to Mayor and Council regarding borrowing bylaw referendum in conjunction with the November 2014 general local government elections.

Englishman River Water Service Agreement - July 1, 2011.

ERWS Revision to the Project Implementation Strategy - July 27, 2015.

Table 1, dated October 12, 2016 showing the recommended ERWS Final 2017 – 2021 Financial Plan and Table 2 showing each Joint Venture's requisition share.

TABLE 1 ENGLISHMAN RIVER WATER SERVICE 2017 - 2021 FINANCIAL PLAN (\$)													
	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 YTD	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	
REVENUE Joint Venture Requisitions Parksville Requisition (74 %) RDN Requisition (26%) Total Joint Venture Requisitions	1,082,5 380,3 <b>1,462,8</b>	79,060		593,655 208,581 <b>802,236</b>	468,754 164,697 <b>633,452</b>	1,485,364 451,245 <b>1,936,609</b>	11,258,780 2,638,220 <b>13,897,000</b>	13,590,772 3,631,488 <b>17,222,260</b>	7,412,169 1,780,357 <b>9,192,525</b>	2,008,727	979,073 343,999 <b>1,323,072</b>	398,381 139,972 <b>538,353</b>	
Other Revenue Grants Transfer From Reserves		0 483,801 0 0	669,172 0	581,257 0	0 0	0 0	1,000,000 0	3,000,000 0	2,000,000 0	0 0	0 0	0 0	
Total Other Revenue	1.462.8	0 483,801	669,172	581,257	0	0	1,000,000	3,000,000	2,000,000	0	0	0	
Training 7-22 Conferences / Seminars 7-22 Memberships 7-22 Contracts 7-22 Consulting 7-22 Consulting 7-22 Legal Fees 7-22 Audit Fees 7-22 Tel / Cable 7-22 Tel / Cable 7-22 Meeting Costs 7-22 Licences and Insurance 7-22 Advertising 7-22 Printing 7-22 Courier 7-22 Small Tools, Equipment & Furniture 7-22 Hydro 7-22	8-7310-300 1,9 8-7310-306 8-7310-307 8-7310-307 8-7310-307 8-7310-330 1,6 8-7310-331 2 8-7310-332 8-7310-333 8-7310-422 8-7310-423 8-7310-423 8-7310-410 8-7310-413 8-7310-452 8-7310-451	0 0 0 0 2,060 0 1,006 0 273 8 748 6 0 2,596 0 4,172 0 809 8 478 0 0 0 0 0 0 0 1 1,631	0 301 5,109 0 0	1,383,493 0 59 0 1,819 470 0 4,100 602 1,276 0 766 44 356	633,452 258 0 0 0 0 3,427 4,100 0 1,901 884 11,382 1,920 29 0 53	1,936,609 1,156 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	14,897,000 0 100 2,000 3,500 4,100 500 1,500 500 200 100 500	20,222,260 0 102 2,040 3,570 4,182 510 1,530 510 204 102 510	11,192,525 0 0 104 2,081 3,641 4,266 520 1,561 520 208 104 520	2,702,796 84,000 106 2,122 3,714 4,351 531 1,592 531 212 106 531	<b>1,323,072</b> 84,000 108 2,165 3,789 4,438 541 1,624 541 216 108 541	538,353 84,000 110 2,208 3,864 4,527 552 1,656 552 221 110 552	
	8-7350-330 1,2 8-7350-450 5		0							150,000 225,000 0	150,000 225,000 0	150,000 225,000 0	
Total Administration (Operating)	5,6	4 13,772	11,440	9,492	23,954	4,308	13,000	13,260	13,525	472,796	473,072	473,353	
Total Operating	5,6	4 13,772	11,440	9,492	23,954	4,308	13,000	13,260	13,525	472,796	473,072	473,353	

Description	G/L	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 YTD	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget
Property Acquisition - Administration	7-6-28-9750-300	13,683	-4,070	11,203	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
Property Acquisition - Consulting	7-6-28-9750-331	6,574	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
Property Acquisition - Parts Materials / Supplies	7-6-28-9750-450	1,200,550	0	0	0	0	0	0	0	0	0	0	0
Total Property Acquis	ition	1,225,925	-3,331	11,203	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	0	42,000	42,000	42,000	0	0	0
River Intake / Supply Mains - Contracts	7-6.28-9751-330	358	256	0	1,031	1,450	0	2,400,000	4,770,000	1,300,000	180,000	0	0
River Intake / Supply Mains - Engineering	7-6.28-9751-331	10,685	17,681	338,863	490,301	236,921	449,254	200,000	280,000	280,000	0	0	0
River Intake / Supply Mains - Legal	7-6-28-9751-332	10,000	0	000,000	400,001	1,592	110,201	200,000	200,000	200,000	0	0	0
River Intake / Supply Mains - Advertising	7-6-28-9751-410	0	0	0	603	0	0	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	(
River Intake / Supply Mains - Parts / Supplies	7-6.28-9751-450	3,023	389	1,008	443	489	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	(
River Intake / Supply Mains - Equip. Lease / Rent	7-6.28-9751-340	28	0	915	0	0	0	0	0	0	0	0	(
Joint Transmission Main - Contracts	7-6-28-9754.330		-		-	0	0	500,000	560,000	310,000	50,000	-	
Joint Transmission Main - Consulting	7-6-28-9754.331					0	101,814	0	40,000	40,000			
COP Transmission Main - Contracts	7-6-28-9755-330					-		3,750,000	3,030,000	2,120,000	100,000		
COP Transmission Main - Consulting	7-6-28-9755-331					0	201,050	0	225,000	225,000	,		
RDN - Craig Bay Pump Station / Top Bridge Transmission						-					1,800,000		
Total River Intake / Supply M	ains	64,703	54,062	384,263	528,976	257,632	752,118	6,892,000	8,947,000	4,317,000	2,130,000	0	(
Water Treatment - Administration	7-6-28-9752-300	23,513	44,296	41,016	33,595	16,831	27,610	42,000	42,000	42,000	0	0	(
Water Treatment - Travel	7-6-28-9752-307	0	0	6,420	,	0	0	,	,	,	-	-	
Water Treatment - Contracts	7-6-28-9752-330	27,222	20,167	0	1,032	45,327	43,372	7,200,000	10,600,000	6,200,000	100,000	850,000	
Water Treatment - Engineering	7-6-28-9752-331	78,978	123,760	127,492	490,301	161,300	1,100,123	750,000	620,000	620,000	0	0	
Water Treatment - Equip. Lease / Rental	7-6-28-9752-340	9,057	22,949	0	0	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	
Water Treatment - Insurance / Permits	7-6-28-9752-400	102	102	0	0	0	500	0	0	0	0	0	
Water Treatment - Advertising	7-6-28-9752-410	0	0	0	603	511	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	
Water Treatment - Parts and Materials	7-6-28-9752-450	1,759	525	0	443	2,782	1,923	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	(
Water Treatment - Equip Res Charge	7-6-28-9752-800	0	306	739	0	485	2,726	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	(
Water Treatment - Hydro	7-6-28-9752-460					553	2,159						
Total Water Treatr	nent	142,219	214,330	175,666	526,765	228,274	1,180,183	7,992,000	11,262,000	6,862,000	100,000	850,000	C

Description	G/L	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 YTD	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget
								ŭ			ŭ		U
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	15,000
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
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	50,000
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
Aquifer Storage and Recovery - Meeting Costs	7-6-28-9753-423	0	120	134	754	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Advertising	7-6-28-9753-410				603	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
Aquifer Storage and Recovery - Small Tools	7-6-28-9753-451	0	0	5,832	39	0	0	0	0	0	0	0	0
Aquifer Storage and Recovery - Courier	7-6-28-9753-452			· ·	161	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
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
Total Aquifer Storage and Recover	у	24,407	509,045	-	318,261	123,592	0	0	0	0	0	0	65,000
Total Capital		1,457,254	774,107	1,256,628	1,374,001	609,498	1,932,301	14,884,000	20,209,000	11,179,000	2,230,000	850,000	65,000
TOTAL EXPENDITURES		1,462,889	787,878	1,268,068	1,383,493	633,452	1,936,609	14,897,000	20,222,260	11,192,525	2,702,796	1,323,072	538,353

	TABLE 2 <u>Parksville Requisition - ERWS</u> 2017 - 2021 FINANCIAL PLAN (\$)													
		2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 YTD	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	
REVENUE Joint Venture Requisitions Parksville Requisition (74%)		1,082,538	225,017	443,183	593,655	468,754	1,485,364	11,258,780	13,590,772	7,412,169	694,069	979,073	398,381	
Other Revenue														
Grants Transfer From Reserves		0	358,013	495,187 0	430,130 0	0 0	0 0	740,000 0	2,220,000 0	1,480,000 0	0 0	0 0	0 0	
Total Other Revenue		o	358,013	495,187	430,130	0	0	740,000	2,220,000	1,480,000	0	0	0	
TOTAL REVENUE		1,082,538	583,030	938,370	1,023,785	468,754	1,485,364	11,998,780	15,810,772	8,892,169	694,069	979,073	398,381	
EXPENDITURES Operating Administration (Operating)		74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	
Salaries / Wages Training Conferences / Seminars	7-2-28-7310-300 7-2-28-7310-306 7-2-28-7310-307	1,443 0 0	0 1,524 744	192 0 0	0 44 0	191 0 0	855 0 0	0 74 0	0 75 0	0 77 0	62,160 79 0	62,160 80 0	62,160 82 0	
Memberships Contracts Consulting Legal Fees	7-2-28-7310-311 7-2-28-7310-330 7-2-28-7310-331 7-2-28-7310-332	0 1,205 189 0	202 554 0 1,921	223 3,780 0	0 1,346 348 0	0 0 2,536	0	0 1,480 0 2,590	0 1,510 0 2,642	0 1,540 0 2,695	0 1,571 0 2,749	0 1,602 0 2,803	0 1,634 0 2,860	
Audit Fees Tel / Cable Meeting Costs	7-2-28-7310-333 7-2-28-7310-422 7-2-28-7310-423	0 0 6	3,087 599 354	3,034 684 450	3,034 445 944	3,034 0 1,407	0 0 620	3,034 370 1,110	3,095 377 1,132	3,157 385 1,155	3,220 393 1,178	3,284 400 1,201	3,350 409 1,226	
Licences and Insurance Advertising Printing	7-2-28-7310-400 7-2-28-7310-410 7-2-28-7310-413	0 0	0 0	0 0	0 566	654 8,423 1,421	616 0	370 148	377 151	385 154	393 157	400 160	409 163	
Courier Small Tools, Equipment & Furniture Hydro	7-2-28-7310-452 7-2-28-7310-450 7-2-28-7310-461	0 60	0 1,207	0 103	33 263	21 0 39	0 1,096	74 370	75 377	77 385	79 393	80 400	82 409	
Minor Capital - Contracts Minor Capital - Parts / Materials	7-2-28-7350-330 7-2-28-7350-450	895 372	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	
Intake, Raw Watermain and Joint Tansmission Mains Water Treatment Plant ASR											111,000 166,500 0	111,000 166,500 0	111,000 166,500 0	
Total Administration (Operating)		4,169	10,191	8,465	7,024	17,726	3,188	9,620	9,812	10,009	349,869	350,073	350,281	
Total Operating		4,169	10,191	8,465	7,024	17,726	3,188	9,620	9,812	10,009	349,869	350,073	350,281	

Description	G/L	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 YTD	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget
		74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74%	74
Property Acquisition - Administration	7-6-28-9750-300	10,125	-3,011	8,290	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	
Property Acquisition - Consulting	7-6-28-9750-331	4,865	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	
Property Acquisition - Parts Materials / Supplies	7-6-28-9750-450	888,407	0	0	0	0	0	0	0	0	0	0	
Total Property Acquis	ition	907,185	-2,465	8,290	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	0	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	1,776,000	3,529,800	962,000	133,200	0	
River Intake / Supply Mains - Engineering	7-6.28-9751-331	7,907	13,084	250,759	362,823	175,322	332,448	148,000	207,200	207,200	0	0	
River Intake / Supply Mains - Legal	7-6-28-9751-332	0	0	0	0	1,178	0	0	0	0	0	0	
River Intake / Supply Mains - Advertising	7-6-28-9751-410	0	0	0	446	0	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	
River Intake / Supply Mains - Parts / Supplies	7-6.28-9751-450	2,237	288	746	328	362	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	
River Intake / Supply Mains - Equip. Lease / Rent	7-6.28-9751-340	21	0	677	0	0	0	0	0	0	0	0	
Joint Transmission Main - Contracts	7-6-28-9754.330	0	0	0	0	0	0	370,000	414,400	229,400	37,000	0	
Joint Transmission Main - Consulting	7-6-28-9754.331	0	0	0	0	0	75,342	0	29,600	29,600	0		
COP Transmission Main - Contracts	7-6-28-9755-330	0	0	0	0	0	0	3,750,000	3,030,000	2,120,000	100,000		
COP Transmission Main - Consulting	7-6-28-9755-331	0	0	0	0	0	201,050	0	225,000	225,000	0		
RDN - Craig Bay Pump Station / Top Bridge Transmission											0		
Total River Intake / Supply M	lains	47,880	40,006	284,354	391,442	190,648	608,840	6,075,080	7,467,080	3,804,280	270,200	0	
Water Treatment - Administration	7-6-28-9752-300	17,399	32,779	30,352	24,860	12,455	20,431	31,080	31,080	31,080	0	0	
Water Treatment - Travel	7-6-28-9752-307	0	0	4,751									
Water Treatment - Contracts	7-6-28-9752-330	20,144	14,924	0	764	33,542	32,095	5,328,000	7,844,000	4,588,000	74,000	629,000	
Water Treatment - Engineering	7-6-28-9752-331	58,444	91,582	94,344	362,823	119,362	814,091	555,000	458,800	458,800	0	0	
Water Treatment - Equip. Lease / Rental	7-6-28-9752-340	6,702	16,982	0	0	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	
Water Treatment - Insurance	7-6-28-9752-400	75	75	0	0	0	370	0	0	0	0	0	
Water Treatment - Advertising	7-6-28-9752-410	0	0	0	446	378	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	
Water Treatment - Parts and Materials	7-6-28-9752-450	1,301	388	0	328	2,059	1,423	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	
Water Treatment - Equip Res Charge	7-6-28-9752-800	0	226	547	0	359	2,018	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	
Water Treatment - Hydro	7-6-28-9752-460					409	1,598				-		
Total Water Treat	ment	105,242	158,604	129,993	389,806	168,923	873,335	5,914,080	8,333,880	5,077,880	74,000	629,000	

Description	G/L	2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 YTD	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 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	11,1
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	
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	37,0
Aquifer Storage and Recovery - Equip Rental	7-6-28-9753-340	0	1,336	1,198	447	0	0	0	0	0	0	0	
Aquifer Storage and Recovery - Meeting Costs	7-6-28-9753-423	0	89	100	558	0	0	0	0	0	0	0	
Aquifer Storage and Recovery - Advertising	7-6-28-9753-410				446	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	
Aquifer Storage and Recovery - Small Tools	7-6-28-9753-451	0	0	4,316	29	0	0	0	0	0	0	0	
Aquifer Storage and Recovery - Courier	7-6-28-9753-452		0	0	119	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	
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	
Total Aquifer Storage and Recovery		18,061	376,694	507,267	235,513	91,458	0	0	0	0	0	0	48,
al Capital		1,078,368	572,839	929,905	1,016,761	451,028	1,482,176	11,989,160	15,800,960	8,882,160	344,200	629,000	48,

	TABLE 2 <u>Regional District of Nanaimo Requisition - ERWS</u> 2017 - 2021 FINANCIAL PLAN (\$)													
		2011 Actual	2012 Actual	2013 Actual	2014 Actual	2015 Actual	2016 YTD	2016 Budget	2017 Budget	2018 Budget	2019 Budget	2020 Budget	2021 Budget	
REVENUE Joint Venture Requisitions RDN Requisition (26%)		380,351	79,060	155,713	208,581	164,697	451,245	2,638,220	3,631,488	1,780,357	2,008,727	343,999	139,972	
Other Revenue														
Grants Transfer From Reserves		0	125,788	173,985 0	151,127 0	0	0	260,000 0	780,000 0	520,000 0	0	0	0	
Total Other Revenue		0	125,788	173,985	151,127	0	0	260,000	780,000	520,000	0	0	o	
TOTAL REVENUE		380,351	204,848	329,698	359,708	164,697	451,245	2,898,220	4,411,488	2,300,357	2,008,727	343,999	139,972	
EXPENDITURES Operating Administration (Operating) Salaries / Wages Training	7-2-28-7310-300 7-2-28-7310-306	26% 507 0	26% 0 536	26% 67 0	26% 0 15	26% 67 0	26% 301 0	26% 0 26	26% 0 27	26% 0 27	26% 21,840 28	26% 21,840 28	<mark>26%</mark> 21,840 29	
Conferences / Seminars Memberships Contracts Consulting Legal Fees	7-2-28-7310-307 7-2-28-7310-311 7-2-28-7310-330 7-2-28-7310-331 7-2-28-7310-332	0 0 423 66 0	261 71 195 0 675	0 78 1,328 0 0	0 0 473 122 0	0 0 0 891	0 0 0 0	0 520 0 910	0 530 0 928	0 0 541 0 947	0 0 552 0 966	0 563 0 985	0 0 574 0 1,005	
Audit Fees Tel / Cable Meeting Costs Licences and Insurance Advertising	7-2-28-7310-333 7-2-28-7310-422 7-2-28-7310-423 7-2-28-7310-400 7-2-28-7310-410	0 0 2 0	1,085 210 124 0	1,066 240 158 0	1,066 157 332 0 199	1,066 0 494 230 2,959	0 0 218 217	1,066 130 390 130 52	1,087 133 398 133 53	1,109 135 406 135 54	1,131 138 414 138 55	1,154 141 422 141 56	1,177 144 431 144 57	
Printing Courier Small Tools, Equipment & Furniture Hydro	7-2-28-7310-410 7-2-28-7310-413 7-2-28-7310-452 7-2-28-7310-450 7-2-28-7310-461	0 21	0 424	0 36	199 11 93	2,939 499 8 0 14	0 385	26 130	27 133	27 135	28 138	28 141	29 144	
Minor Capital - Contracts Minor Capital - Parts / Materials	7-2-28-7350-330 7-2-28-7350-450	314 131	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	0 0	
Intake, Raw Watermain and Joint Tansmission Mains Water Treatment Plant ASR											39,000 58,500 0	39,000 58,500 0	39,000 58,500 0	
Total Administration (Operating)		1,465	3,581	2,974	2,468	6,228	1,120	3,380	3,448	3,517	122,927	122,999	123,072	
Total Operating		1,465	3,581	2,974	2,468	6,228	1,120	3,380	3,448	3,517	122,927	122,999	123,072	

Capital - Program Summary	0"	2011	2012	2013	2014	2015	2016	2016	2017	2018	2019	2020	2021
Description	G/L	Actual	Actual	Actual	Actual	Actual	YTD	Budget	Budget	Budget	Budget	Budget	Budget
		26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%	26%
Property Acquisition - Administration	7-6-28-9750-300	3,558	-1,058	2,913	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
Property Acquisition - Consulting	7-6-28-9750-331	1,709	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
Property Acquisition - Parts Materials / Supplies	7-6-28-9750-450	312,143	0	0	0	0	0	0	0	0	0	0	0
Total Property Acquisition	1	318,741	-866	2,913	0	0	0	o	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	0	10,920	10,920	10,920	0	0	0
River Intake / Supply Mains - Contracts	7-6.28-9751-330	93	67	0	268	377	0	624,000	1,240,200	338,000	46,800	0	0
River Intake / Supply Mains - Engineering	7-6.28-9751-331	2,778	4,597	88,104	127,478	61,599	116,806	52,000	72,800	72,800	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
River Intake / Supply Mains - Advertising	7-6-28-9751-410	0	0	0	157	0	0	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
River Intake / Supply Mains - Parts / Supplies	7-6.28-9751-450	786	101	262	115	127	0	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
River Intake / Supply Mains - Equip. Lease / Rent	7-6.28-9751-340	7	0	238	0	0	0	0	0	0	0	0	0
Joint Transmission Main - Contracts	7-6-28-9754.330	0	0	0	0	0	0	130,000	145,600	80,600	13,000	0	0
Joint Transmission Main - Consulting	7-6-28-9754.331	0	0	0	0	0	26,472	0	10,400	10,400	0		
COP Transmission Main - Contracts	7-6-28-9755-330	0	0	0	0	0	- 7	-	-,	.,			
COP Transmission Main - Consulting	7-6-28-9755-331	0	0	0	0	0							
RDN - Craig Bay Pump Station / Top Bridge Transmission		_	-	-		-					1,800,000		
Total River Intake / Supply Mains	5	16,823	14,056	99,908	137,534	66,984	143,278	816,920	1,479,920	512,720	1,859,800	0	0
		,	,	,	,	,	,	,	.,	,	.,,	-	-
Water Treatment - Administration	7-6-28-9752-300	6,113	11,517	10,664	8,735	4,376	7,179	10,920	10,920	10,920	0	0	0
Water Treatment - Travel	7-6-28-9752-307	0	0	1,669	-,	,			- ,				
Water Treatment - Contracts	7-6-28-9752-330	7,078	5,244	0	268	11,785	11,277	1,872,000	2,756,000	1,612,000	26,000	221,000	0
Water Treatment - Engineering	7-6-28-9752-331	20,534	32,178	33,148	127,478	41,938	286,032	195,000	161,200	161,200	0	0	0
Water Treatment - Equip. Lease / Rental	7-6-28-9752-340	2,355	5,967	0	0	0	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
Water Treatment - Insurance	7-6-28-9752-400	26	26	0	0	0	130	0	0	0	0	0	0
Water Treatment - Advertising	7-6-28-9752-410	0	0	0	157	133	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
Water Treatment - Parts and Materials	7-6-28-9752-450	457	136	0	115	723	500	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
Water Treatment - Equip Res Charge	7-6-28-9752-800	0	79	192	0	126	709	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
Water Treatment - Hydro	7-6-28-9752-460		Ũ	°,	ů	144	561	Ŭ	Ŭ	°	°,	ů	ĩ
Total Water Treatment		36,977	55,726	45,673	136,959	59,351	306,848	2,077,920	2,928,120	1,784,120	26,000	221,000	0
		00,011		.0,010	,	55,501	000,040	_,,	_,0_0,.20	.,	_0,000	,500	v

Description	G/L	2011	2012	2013	2014	2015	2016	2016	2017	2018	2019	2020	2021
		Actual	Actual	Actual	Actual	Actual	YTD	Budget	Budget	Budget	Budget	Budget	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	3,900
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	
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	13,000
Aquifer Storage and Recovery - Equip Rental	7-6-28-9753-340	0	470	421	157	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	
Aquifer Storage and Recovery - Advertising	7-6-28-9753-410				157	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	
Aquifer Storage and Recovery - Small Tools	7-6-28-9753-451	0	0	1,516	10	0	0	0	0	0	0	0	
Aquifer Storage and Recovery - Courier	7-6-28-9753-452		0	0	42	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	
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	
Total Aquifer Storage and Recov	ery	6,346	132,352	178,229	82,748	32,134	0	0	0	0	0	0	16,90
		-,	,	,	,	,	-	-	-		-	-	,
Total Capital		378,886	201,268	326,723	357,240	158,469	450,125	2,894,840	4,408,040	2,296,840	1,885,800	221,000	16,90
TOTAL EXPENDITURES		380,351	204,848	329,698	359,708	164,697	451,245	2,898,220	4,411,488	2,300,357	2,008,727	343,999	139,97