



**Cowichan Valley Regional District**  
**Utility System Acquisition Report**  
**September 2018**



Updated November 2018



## Cowichan Valley Regional District Utility System Acquisition Report

### TABLE OF CONTENTS

<b>INTRODUCTION AND BACKGROUND .....</b>	<b>1</b>
<b>Acquiring Systems Policies .....</b>	<b>1</b>
<i>Policy No. 1. Acquisition of Existing Utility Systems .....</i>	<i>2</i>
<i>Policy No. 2. Acquisition of New Utility Systems .....</i>	<i>2</i>
<i>Policy No. 3. Developments Joining CVRD Utility Systems .....</i>	<i>2</i>
<i>Policy No. 4. First Nation Developments Requesting Service from CVRD Utility Systems .....</i>	<i>2</i>
<i>Policy No. 5: CVRD Utilities Joining Non-CVRD Systems.....</i>	<i>3</i>
<i>Policy No. 6 CVRD Utilities Joining First Nations Utility Systems.....</i>	<i>3</i>
<b>Prioritizing Systems for Acquisition .....</b>	<b>3</b>
<i>Policy No. 7 Prioritizing Systems for Acquisition .....</i>	<i>3</i>
<b>Financial Viability of Utility Systems .....</b>	<b>3</b>
<i>Policy No. 8 Financial Viability of Utility Systems .....</i>	<i>3</i>
<b>Engineering Assessments .....</b>	<b>3</b>
<i>Policy No. 9 Engineering Assessments .....</i>	<i>3</i>
<b>Limit to Number of Assessments .....</b>	<b>4</b>
<i>Policy No. 10 Number of Engineering Assessments .....</i>	<i>4</i>
<b>Utility Transfer Agreement and Transfer of Financial Assets .....</b>	<b>4</b>
<i>Policy No. 11 Utility Transfer Agreement and Transfer of Financial Assets.....</i>	<i>4</i>
<b>Payment for Utility Systems .....</b>	<b>4</b>
<i>Policy No. 12 Payment for Utility Systems .....</i>	<i>4</i>
<b>Public Assent Process for Acquiring Existing Systems.....</b>	<b>5</b>
<i>Policy No. 13 Public Assent Process for Acquiring Existing Utilities .....</i>	<i>5</i>
<b>Acquisition Timing .....</b>	<b>5</b>
<i>Policy No. 14 Timing .....</i>	<i>5</i>
<b>RISK MITIGATION.....</b>	<b>5</b>
<b>Transfer of System and Legal Risk .....</b>	<b>5</b>
<i>Policy No. 15 Legal Risk .....</i>	<i>5</i>
<b>Transfer of System Without Valid Permits or Licences .....</b>	<b>6</b>
<i>Policy No. 16 Systems without Valid Permits .....</i>	<i>6</i>
<b>Constructed Works Protection by RoW, Easements, Leases or Fee Simple... ..</b>	<b>6</b>
<i>Policy No. 17 Rights-of-way, Easements, Ownership of Lands .....</i>	<i>6</i>
<b>SERVICE DELIVERY.....</b>	<b>6</b>
<i>Policy No. 18 Service Delivery .....</i>	<i>6</i>
<b>Supervisory Control and Data Acquisition System .....</b>	<b>6</b>
<i>Policy No. 19 Supervisory Control and Data Acquisition Systems (SCADA) .....</i>	<i>6</i>

<b>STANDARDS .....</b>	<b>7</b>
<b>Compliance with Provincial Legislation and Directives.....</b>	<b>7</b>
<i>Policy No. 20 Compliance with Provincial Legislation .....</i>	<i>7</i>
<b>Servicing Standards for New Systems.....</b>	<b>7</b>
<i>Policy No. 21: Servicing Standards for New Systems .....</i>	<i>7</i>
<b>Servicing Standards for Existing Systems .....</b>	<b>7</b>
<i>Policy No. 22 Servicing Standards for Existing Systems.....</i>	<i>7</i>
<b>Emergency Plans.....</b>	<b>8</b>
<i>Policy No. 23 Emergency Plans.....</i>	<i>8</i>
<b>Water Conservation .....</b>	<b>8</b>
<i>Policy No. 24 Conservation Plans.....</i>	<i>8</i>
<b>Water Metering... ..</b>	<b>8</b>
<i>Policy No. 25 Water Metering .....</i>	<i>8</i>
<b>GOVERNANCE .....</b>	<b>8</b>
<b>Consistency with Land Use Planning Regulations and Policies.....</b>	<b>8</b>
<i>Policy No. 26: Land Use Planning .....</i>	<i>8</i>
<b>FINANCIAL SUSTAINABILITY.....</b>	<b>8</b>
<b>Cost of Conversion.....</b>	<b>8</b>
<i>Policy No. 27: Cost of Conversion .....</i>	<i>9</i>
<b>Rates.....</b>	<b>8</b>
<i>Policy No. 28: Rates .....</i>	<i>8</i>
<b>Loan Authorization .....</b>	<b>9</b>
<i>Policy No. 29: Loan Authorization.....</i>	<i>9</i>
<b>Tangible Capital Assets, Capital Reserve Funds &amp; Infrastructure Renewal .....</b>	<b>9</b>
<i>Policy No. 30: Tangible Capital Asset Information &amp; Long Term Capital Replacement .....</i>	<i>10</i>
<b>APPENDICES</b>	
Appendix A - Terms of Reference for Utility Feasibility System Assessments.....	12
Appendix B – Sample Asset Inventory Form.....	15
Appendix C - Utility Assessment Matrix – Excel.....	18
Appendix D - Work Safe Hazard Risk Assessment.....	21
Appendix E - Sample Utility Transfer Agreement.....	44

## **Introduction and Background**

In the fall of 2016, the Cowichan Valley Regional District (CVRD) hired Innova Strategy Group (Innova) to conduct a Water & Wastewater Utilities Review and Assessment. The review included an assessment and detailed examination of the challenge of managing and operating 35 water and wastewater utilities within a regional district context. The report provided recommendations for the management and operations of the utilities, changes to the relationships with utility customers/residents, and provided options for changes to the overall governance of existing and potential future utilities.

The CVRD has a moratorium for takeover of existing systems due to the inability to properly fund and operate them at a municipal standard. As part of this comprehensive utility review, a recommendation for utility acquisition was recommended. This report outlines policies and practices proposed to form the CVRD's Utility System Acquisition Policy, which will guide future decisions related to utility system acquisition, assessment, and operations.

As part of the acquisition policy, it is critical that detail for the requirements for adding utilities to the CVRD are clearly laid out. This will ensure fairness for both CVRD and the utility owners and will ensure that expectations are clear to all.

To minimize risk, these policies and assessment procedures must ensure:

- The CVRD has as complete an understanding of the condition of the utility system as possible prior to acquiring that system;
- The CVRD has the necessary resources (e.g., financial resources, organizational capacity, technology) to own and operate additional systems; and,
- The utility system will be financially viable over the long-term under CVRD ownership.

To communicate effectively and provide benefit for the customers, these policies and assessment procedures have been developed to ensure that:

- Expectations are understood and met by both CVRD and its customers;
- Detailed criteria for acceptance is provided; and
- Utility customers are fairly represented within the governance system.

## **Acquiring Systems Policies**

Historically the methods of acquiring existing utility systems come in the form of requests from customers, from utility owners or improvement districts, or from escheatment from the provincial government. The inability to provide knowledgeable operational staff, keep up with higher modern standards, replace ageing infrastructure or fully recover costs to provide these services on a sustainable basis have led existing utility providers to seek CVRD acquisition.

As part of the Innova report, a recommendation to amalgamate and combine utilities in the region was suggested as larger systems are more viable financially and operationally. Acquisition and amalgamation proposals for this purpose may come from the CVRD directly.

Following an initial meeting with CVRD staff to discuss the expression of interest in becoming a regional district service, applicants must host a public meeting or alternative consultative process to share information with the customers about the application. Following this meeting, proof must be provided to the CVRD that a clear majority of users within the service area support the application for the acquisition process to continue.

CVRD staff in the Water Management Division and in Land Use Services will also meet to see if these acquisitions or amalgamation of systems meet official community plans and policies.

***Policy No. 1: Acquisition of Existing Utility Systems***

***(a) The CVRD will entertain requests to assume ownership of existing utility systems from:***

- Utility customers, utility system owners, improvement districts or provincial authorities; and***
- Provided that the Electoral Area Director concludes that there is sufficient local support for the potential acquisition, which is often provided by a letter requesting that the CVRD investigate the feasibility of acquiring a utility system.***
- If utility customers approach the CVRD directly to request acquisition, the CVRD will consult with the utility system owner to obtain the owner's consent prior to initiating the acquisition process.***

***(b) Alternatively, the CVRD will initiate a utility system acquisition process itself if the owner of the utility system agrees and such an acquisition would:***

- Result in measurable improvements to utility service provision (i.e. quality and reliability, as well as compliance with federal or provincial regulations and the CVRD Subdivision Servicing Bylaw);***
- Be supported by the utility customers of that system;***
- Enable the CVRD to realize economies of scope or scale, which would result in cost savings relative to the utility systems meeting the same standards on their own; and,***
- Support broader CVRD objectives of amalgamation as per Official Community plans (OCP), Liquid Waste Management Plan (LWMP) and policies.***

***Policy No. 2: Acquisition of New Utility Systems***

***(a) The CVRD will entertain requests to assume ownership of new utility systems from:***

- Owners and developers; and,***
- Provided that Land Use Services Department and the Electoral Area Director supports the potential acquisition, the new infrastructure is built to CVRD and provincial standards and the development meets planning objectives.***

***Policy No. 3. Developments Joining CVRD Utility Systems***

***(a) The CVRD will entertain requests from properties to join existing CVRD utilities from:***

- Owners and developers; and,***
- Provided the Land Use Services Department and the Electoral Area Director supports the inclusion, the system has capacity for growth, the new infrastructure is built to the CVRD and provincial standards and the development meets planning objectives.***

***Policy No. 4. First Nation Developments Requesting service from CVRD Utility Systems***

***(a) The CVRD will entertain requests from First Nations requesting service from existing CVRD utilities from:***

- First Nations Governing Councils and their developers; and***
- Provided that Land Use Services Department and the Electoral Area Director supports the servicing, the system has capacity for growth, the new infrastructure is built to the CVRD and provincial standards and the development meets planning objectives; and,***
- An agreement between both parties be executed prior to servicing.***

**Policy No. 5. CVRD Utilities Joining Non-CVRD Utility Systems**

**(a) The CVRD will entertain requests from CVRD customers wishing to join non-CVRD utilities from:**

- **Customers; and,**
- **Provided that Land Use Services Department and the Electoral Area Director supports the exclusion, and the non-CVRD system has capacity for growth and meets planning objectives and the customers have representational say at the non-CVRD system.**

**Policy No. 6. CVRD Utilities Joining First Nations Utility Systems**

**(a) The CVRD will review amalgamation of CVRD Utilities with First Nations by special agreement and negotiations.**

**Prioritizing Systems for Acquisition**

As several utilities can approach the CVRD for service provision at one time, the Water Management Division with the support of Land Use Services, must prioritize the possible acquisitions. A major priority will be the systems with significant risk to health and the environment. Past experience has shown that systems in escheatment or in significant mechanical disrepair are at most risk. The CVRD will help to ensure that its resources are allotted to the systems in the greatest need. Further, systems which are able to connect to a compliant system stand a greater chance of success.

**Policy No. 7: Prioritizing Systems for Acquisition**

- (a) The CVRD will prioritize the acquisition of utility systems that pose significant health risks to utility customers and the environment; and,**
- (b) Utility systems able to connect to an adjacent system will have higher priority than those which cannot.**

**Financial Viability of Utility Systems**

The CVRD will not consider acquiring utility systems that are not expected to be financially viable to operate under CVRD ownership. It is recommended that the CVRD limit acquisition of new utilities to systems with at least 50 connections. Existing systems of less than 50 that are capable of expansion or amalgamation may be accepted.

**Policy No. 8: Financial Viability of Utility Systems**

- (a) The CVRD will consider acquiring utility systems that have at least 50 connections and are expected to be financially viable to own and operate; and,**
- (b) The Board may waive this size requirement if expansion or amalgamation is possible.**

**Engineering Assessments**

In order to make informed decisions about utility acquisitions, the CVRD must complete a comprehensive assessment of a system requesting takeover. This engineering assessment should incorporate the principles of asset management and include a detailed asset inventory, condition assessment, financial strategy with full cost accounting for replacement of existing infrastructure and operations, a clearly defined level of service, risk/hazard assessment, and a health and safety analysis, in a format acceptable to the CVRD. Land Use Services must also be included in the assessment, with regards to zoning and OCP policies.

**Policy No. 9: Engineering Assessments**

- (a) The CVRD will not acquire an existing utility system until a comprehensive assessment has been carried out by a qualified professional consistent with the**



**requirements established by the CVRD in its Terms of Reference for Utility System Assessments;**

- (b) Upon receipt of an expression of interest, the Electoral Area Director can request access to the Electoral Feasibility Study Function Fund. If approved, these funds will be used to engage an engineering firm to examine the history, legal status and condition of the utilities. If the system is taken over by the CVRD, this amount is to be repaid by the new function; and,**
- (c) In the case of a development joining a utility service area, an engineering assessment will be required to determine the impact of this development on the existing CVRD utility service. This study will be funded entirely by the developer and carried out by the CVRD.**

#### **Limit to Number of Assessments**

As part of the Utility System Acquisition Policy and the engineering assessment required prior to takeover, the Electoral Area Feasibility Study Function is in place to provide a mechanism for owners of private water and sewer systems to access funds for the assessment. The process to access this fund is by request from a utility provider or from the Area Director. If the utility transfer takes place, the feasibility fund is repaid in its first year of CVRD ownership. If the transfer does not take place, these costs are not recovered. Therefore, the number of assessments must be limited to what may be reasonably accommodated by the Feasibility Study Function and with consideration of staff resources.

#### ***Policy No. 10: Number of Engineering Assessments***

- (a) The CVRD will limit the number of completed engineering assessments for existing utility systems to two per year provided staff resources are available.**

#### **Utility Transfer Agreement and Transfer of Financial Assets**

As part of the acquisition process, a utility transfer agreement must be completed between the owner of the utility and the CVRD. In order to ensure financial viability, as part of the transfer of private utility systems, any funds held as performance reserves or capital reserves by the owners of the system or by provincial Comptroller of Water Rights (water) or Ministry of Environment (sewer) must be transferred to the CVRD. In extenuating circumstances, the Board may choose to waive this policy in order to fulfill the intent of the acquisition policy.

#### ***Policy No. 11: Utility Transfer agreement and Transfer of Financial Assets***

- (a) A utility transfer agreement must be completed between the owner of the utility and the CVRD;**
- (b) The transfer of a utility system to the CVRD will be conditional on the transfer of all the financial assets related to the system including all pertinent reserve and trust funds, performance reserve funds in place as requirements of the Provincial Regulatory body, as well as any pre-servicing or other prepaid commitments; and,**
- (c) In extenuating circumstances, the Board may waive this requirement.**

#### **Payment for Utility Systems**

It is possible that owners of private utility systems wish to recover costs for the construction or improvement of their systems. Considering that these costs are typically recovered through lot sales, it is recommended that the CVRD may pay no more than \$10 to acquire any system. In extenuating circumstances, the Board may waive this requirement.

#### ***Policy No. 12: Payment for Utility Systems***

- a) It is the practice of the CVRD not to pay more than consideration of \$10 for the acquisition of any utility system; and,**
- b) In extenuating circumstances, the Board may waive this requirement.**

### **Public Approval Process for Acquiring Existing Systems**

Once the contents of the engineering report and the overall financial picture have been discussed, residents will be asked if they wish to go to the next step, a formal public approval process. A public approval process is a legally binding procedure where the prospective service customers give their formal consent for the CVRD to provide a charge for that service. A draft budget is prepared and presented to the potential customers as part of the approval process.

Approval can be accomplished by referendum, formal petition, or through an alternative approval process (i.e., counter petition where fewer than 10% of the electors petition against the proposal). As the process of acquisition is lengthy and costly, strong support by the customers at the outset is critical. Referenda are quite costly (\$5,000 plus) and require a majority vote (50% plus one) in favour to pass. Petitions are relatively inexpensive, but require a time commitment from the local residents to ensure that petitions are circulated, completed correctly and returned to the CVRD by a given deadline. A passing petition requires greater than 50% of the total assessment and number of landowners be in favour.

If the public approval process is successful, the CVRD will prepare the necessary bylaws and paperwork to establish a service area and legally transfer ownership of the utility and will develop operational criteria. A public assent process should be completed before the end of July (in order to enable appropriate coding by the BC Assessment Authority) to ensure that a CVRD takeover is possible for the following year. If this timeline is not possible, a one-time parcel tax equivalent will be charged directly to the customers.

### ***Policy No. 13: Public Assent Process for Acquiring Existing Utilities***

- (a) The CVRD will assume ownership of an existing utility system only upon a successful public approval process.***

### **Acquisition Timing**

The assessment and acquisition process is time consuming to complete properly due to the legal and regulatory requirements. In general, the total time frame from the expression of interest to a successful acquisition is expected to be in excess of 12 months.

### ***Policy No. 14: Timing***

- (a) The CVRD will work with relevant regulatory agencies to promote the timely completion of the required assessment and regulatory process related to the acquisition process.***

## **RISK MITIGATION**

### **Transfer of System and Legal Risk**

On some occasions, unacceptable risks associated with the provision of a utility service are a motivator for a utility owner to seek takeover by the CVRD. Risk plays an important role within these systems. Therefore, the CVRD must assess legal risk on a case-by-case basis prior to accepting systems.

### ***Policy No. 15: Legal Risk***

- (a) The CVRD will not acquire or assume responsibility for a utility system if it is determined there is undue legal risk associated with doing so.***



### **Transfer of System Without Valid Permits or Licences**

To be consistent with overall objective of managing risk, it is recommended that utility systems not be acquired if there is substantial risk that required permits or licences are not capable of being obtained.

#### ***Policy No. 16: Systems without Valid Permits***

- (a) The CVRD will not acquire or assume responsibility for utility systems that are at substantial risk to not meet required permits, licences or registrations.***

### **Constructed Works Protected by Right-of-way, Easements, Leases or Fee Simple Ownership**

Many existing utility systems do not have the necessary rights-of-way, easements, leases or other tenures to protect the systems infrastructure. There is risk that the CVRD may not be able to acquire the necessary land tenure which may prevent it from properly operating the system. The CVRD may want to reduce its risk by requiring the easements and rights-of-way are in place prior to acquisition. Land Use Services may be able to work with new or existing utility systems for creation of stand-alone utility lots or for improvement of infrastructure through policies during takeover.

Further with acceptance of new systems it is recommended that major infrastructure is located on lands to be transferred to the Regional District where possible.

#### ***Policy No. 17: Rights-of-way, Easements, Ownership of Lands***

- (a) The CVRD will not assume ownership of utility systems where major facilities, mains, and other constructed works are not located within registered rights-of-way or easements held by the owners of the system or within a legal parcel owned or leased by the owner;***
- (b) For new utility systems, all major infrastructure must be located on lands to be transferred to the Regional District; and,***
- (c) For developments joining existing utility services areas where rights-of-way are required, all costs for obtaining these rights-of-way will be borne by the developer.***

### **SERVICE DELIVERY**

Due to liability in operation and maintenance of its utility systems, it is required that the CVRD carries out these tasks with its own forces or its contractors.

#### ***Policy No. 18: Service Delivery***

- (a) All activities related to the management, operation and maintenance of the utility systems be carried out by CVRD staff or its contractors.***

### **Supervisory Control and Data Acquisition Systems**

Due to large distances between CVRD-owned utility systems and limited human resources available, it is not practical to conduct site visits to every system on a daily basis. To ensure all CVRD utility systems receive the required municipal level of service in a cost effective manner, a SCADA system is required for monitoring and operation. SCADA must be acknowledged and planned at the onset of acquisition as it is an integral part of the operation.

#### ***Policy No. 19: Supervisory Control and Data Acquisition Systems (SCADA)***

- (a) The CVRD will prioritize the development and installation of a SCADA system to ensure efficient and effective service delivery for all of its utility systems; and,***
- (b) All upgrades to existing and new utility system must include a SCADA system components or accommodate the future installation of SCADA systems.***

## **STANDARDS**

### **Compliance with Provincial Legislation and Directives**

While it is clear that utility systems must be operated in a manner consistent with pertinent legislation, there are situations where these regulations have not been met. New regulations and standards also have been implemented since the development of the existing systems. A clear statement of policy must be included to communicate this requirement of compliancy with provincial regulation with customers of utility systems.

#### ***Policy No 20: Compliance with Provincial Legislation***

- (a) The CVRD may discuss recommendations from the assessment report with regulatory officials in order to ensure their requirements will be satisfied following implementation of the recommendations; and,***
- (b) The CVRD will operate, maintain and upgrade its utility system to be consistent with pertinent provincial legislation, directives and best practices.***

### **Servicing Standards for New Systems**

The CVRD is currently in the process of updating its Subdivision Service Bylaw to include up-to-date design standards and specifications. Once adopted, construction of all new utility systems must meet these standards to serve fee simple developments. The Local Government Act does not allow local governments to impose these requirements within a strata development, however, where the CVRD is acquiring the new strata system it must also meet these standards as a condition of acquisition.

#### ***Policy No. 21: Servicing Standards for New Systems***

- a) As a condition of acquisition of all new utility systems, including strata developments, meet design standards and construction specifications outlined in the CVRD Subdivision Servicing Bylaw;***
- b) As a condition of acquisition, the CVRD may engage a third party (chosen by the CVRD) to review any document, report, or analysis related to the utility system that the developer has submitted to the CVRD. The developer will be responsible for the full cost of any required third party review; and,***
- c) All design works must be carried out by a suitably qualified engineer and CVRD must have access to the preliminary and detailed design information for direction prior to construction of works.***

### **Servicing Standards for Existing Systems**

The CVRD has found that many existing systems were not built or maintained to specific standards or were built to lower standards of the time. Costs and ability to upgrade these systems can be prohibitive or not possible without major infrastructure funding. However in the long term, in order to achieve a sustainable service, existing utility systems must be brought up to an acceptable standard. Therefore prior to takeover, customers of the system must accept a long term upgrade program as determined by the CVRD and furthermore provision can be made in the budget for the system to achieve the required upgrades. A CVRD communication strategy must be in place to advise these existing or potential customers of these shortfalls and potential costs.

#### ***Policy No. 22: Servicing Standards for Existing Systems***

- (a) The CVRD will prepare a long term upgrade plan for all acquired systems; and,***
- (b) The CVRD will work to bring all existing utility systems to required standards and will communicate these policies to customers in systems that are not compliant.***

### **Emergency Plans**

As part of water system operating permits, emergency plans must be in place.

#### ***Policy No. 23: Emergency Plans***

- (a) For acquisition of a new system, an emergency plan or funding for one, must be provided to the CVRD.***

### **Water Conservation**

The CVRD supports long term sustainability of water supplies. Therefore all new and existing water utilities being considered for takeover must include a water conservation plan.

#### ***Policy No. 24: Conservation Plans***

- (a) The CVRD will develop and implement water conservation plans for all of its water systems.***

### **Water Metering**

Water metering is one of the most effective ways to encourage water conservation and to recover costs fairly. Water conservation plans for existing utilities must therefore include a commitment to metering of the system. For new water systems, infrastructure for meters must be installed and meters or funds for them must be provided.

#### ***Policy No. 25: Water Metering***

- (a) All new water systems must be metered or funding for metering must be provided;***  
***(b) For existing unmetered water systems, conservation plans will be prepared that include metering commitment; and,***  
***(c) The CVRD will establish water user rates based on water metering and an inclined block overage fee structure.***

## **GOVERNANCE**

### **Consistency with Land Use Planning Regulations and Policies**

To aid in orderly and sustainable growth within the Regional District, it is recommended that the Water Management Division continues to coordinate with Land Use Planning (Official Community Plans, and Zoning Regulations) with service delivery objectives.

#### ***Policy No. 26: Land Use Planning***

- (a) The CVRD will coordinate its utility services for CVRD service delivery objectives with the Land Use Services planning regulations and policies.***

## **FINANCIAL SUSTAINABILITY**

As per the Innova study, financial sustainability is a core principle for ensuring safe water and wastewater treatment and distribution to ensure continued protection of public health and the environment. Financial sustainability includes providing appropriate funding for operating and maintaining water and wastewater utilities as well as proactively planning to ensure there will be funds to renew and replace utilities as they come to the end of their useful life.

Existing utility systems customers requesting acquisition by CVRD must also be made aware of the real cost of service and must be prepared to pay for it.

Occasionally developers for new utilities request the CVRD to share the cost or debt for new servicing, by creating debt service areas, in essence sharing the risk of development. The CVRD will not support debt servicing areas for utility infrastructure costs for new developments.

### **Cost of Conversion**

Cost of conversion of a private or improvement district utility system can be costly and are normally recovered in the first year of operation. These costs include legal, registration and transfer fees. The CVRD will not recover outstanding customer charges owed or pay debts by the utility system.

#### ***Policy No. 27: Cost of Conversion***

- (a) All costs accrued throughout the utility acquisition process will be repaid by the new function its first fiscal year;***
- (b) All outstanding water or wastewater charges must be collected by the applicant prior to system acquisition;***
- (c) All outstanding water or wastewater debts owed by the applicant must be paid prior to system acquisition; and,***
- (d) The CVRD will not support borrowing for new developments where future customers repay debt.***

### **Rates**

Based on individual system asset condition assessments, rates must reflect the actual cost of the service and infrastructure replacement. Ensuring customers understand the precise allocations including separation of operations and asset replacement funding required. In order to minimize any substantial increases in user rates, the CVRD may consider phasing in increases over time.

#### ***Policy No. 28: Rates***

- (a) The CVRD will introduce utility rates to recover the full cost of providing the utility service, including replacement cost of infrastructure for both new and existing utility systems; and,***
- (b) The CVRD will consider phasing in rate increases due to long term asset management over multiple years to help mitigate the impact on customers.***

### **Loan Authorization**

It is expected that many existing utility systems requesting acquisition will require capital improvement to comply with standards. Borrowing on behalf of the existing water systems is anticipated for capital upgrades and can be included with elector assent process.

#### ***Policy No. 29: Loan Authorization***

- (a) If borrowing is required for capital upgrades to existing works in preparation of acquisition, the CVRD will advance the loan authorization for elector assent at the same time as the establishing bylaw.***

### **Tangible Capital Assets, Capital Reserve Funds and Infrastructure Renewal**

As accounting practices require local governments to evaluate and report their tangible capital assets, the most up to date information must be included with the acquisition process.

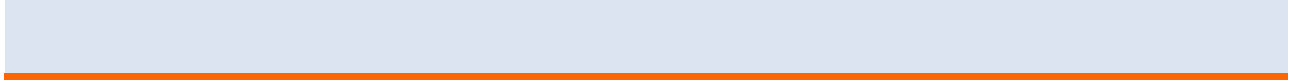
For existing systems, this information can be included within the Engineering Assessment. For new utility systems, the developers must provide the information as part of the acquisition process. New developments must provide funding for capital reserves and for two year deficiency warranty bonds.

***Policy No 30: Tangible Capital Asset Information and Long-Term Capital Replacement***

- (a) Developers must provide the information on tangible capital assets in a form acceptable to the CVRD for all new utility systems infrastructure the applicant construct or install. This information will be provided to the CVRD as a condition of acquisition;***
- (b) For existing utility systems, collecting information on the system's tangible capital assets will be part of the required comprehensive assessment;***
- (c) As a condition of acquisition of a new utility system, the CVRD will require the developer to provide 5% of the value of the tangible capital assets to build up the into a reserve fund for long term capital replacement; and,***
- (d) As a condition a 10% deficiency bond is required for a two year warranty term for all new capital assets.***

## **APPENDIX A**

### *TERMS OF REFERENCE FOR UTILITY FEASIBILITY ASSESSMENTS*



## **APPENDIX A – TERMS OF REFERENCE FOR UTILITY FEASIBILITY ASSESSMENT**

Water and Wastewater assessments play an important role for the Regional District in negotiating, decision making and transfer of utilities. It must be carried out by qualified professionals who have an understanding of the system and asset management principles to determine functionality, limitations, liabilities, municipal regulations and realistic costs to bring it to compliance.

The assessment should provide information about the systems such as:

- Regulatory compliance and ability to meet these guidelines (Level of Service);
- Detailed asset inventory;
- Condition assessment;
- Financial Plan;
- Risk assessment;
- Public health and safety; and,
- Zoning and land use.

The Terms of Reference must:

- Provide a description of the existing water and wastewater system, including general information regarding the system and the existing infrastructure, asset management as well as operational, management and financial information;
- Assess the system to determine if it meets current legislation and best practices and implications for meeting these objectives;
- Financial implications for both the CVRD and the customers through the development of a plan for system upgrades and financial viability of the system as stand-alone or through growth or amalgamation;
- Land use policy and ability of system to amalgamate with other utilities in the area; and,
- Implications of risk for the CVRD.

This assessment process can often be limited by lack of information including operations, records and emergency response plans and this can be exasperated as the majority of the infrastructure is buried pipe. Therefore the level of the assessment process may vary and will be subject to knowledge and experience of the assessment provider.

Therefore the assessment process should:

- Examine the existing system including: location, history, service area, number of connections, population serviced, range or type of customers, ability to grow or amalgamate the system with another;
- Identify Ownership of system: Private, Improvement District, Society, bylaws, method of representation, public accountability and administration; easements, rights of way, ownership of infrastructure and lands, crown leases and tenures;
- Include Permits and Licenses: Ministry of Environment – permits and registration compliancy, well licensing, Island Health - operating permits and the conditions, incidents of boil water advisories, construction permits, Ministry of Transportation and Infrastructure;
- Identify Risk to customers and CVRD: Emergency response plans, Fire Underwriters Survey, worker compensation compliancy, water protection plans, environmental impact plans if available;
- Include system description: records including drawings, asset inventory, condition assessment, inspection/maintenance reports, treatment procedures, distribution and collection systems, monitoring and maintenance records, pump records, modelling;



- Recognize operational requirements: staffing levels: including certification of operators and EOCP classification of the system, operating plans, emergency procedures, standards and specifications for infrastructure, sampling testing and reporting protocols including frequency and methods, maintenance history and planning; and,
- Recognize financial commitments: Existing costs and charges, debt, sources of revenue and method of cost recovery, reserves funds, trusts, annual rates budgets, capital upgrade plans.

#### Water System Assessment:

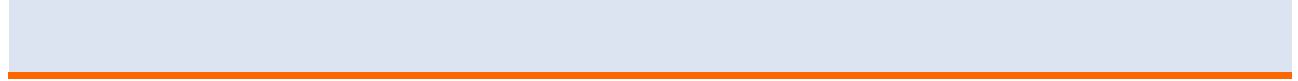
- Source: watershed or groundwater protection plans, well security, well quantity for existing and future demand;
- Treatment: quality, level of treatment achieved and consistency of provincial & Canadian Drinking Water Standards; emergency power backup;
- Storage: condition and adequacy to meet existing and future demands; Fire Underwriter Survey;
- Distribution: pumping, pressure reducing/boosting, modelling, pipeworks ability to meet existing and future demand;
- Safety: equipment and review of WCB regulations;
- Plans and Programs: identification of upgrades required to bring systems into conformity with CVRD standards, provincial and federal regulations, including Capital upgrade plans; and,
- Financial Strategy: incorporating real cost of operation and maintenance, proposed capital upgrades.

#### Sewer System Assessment:

- Collection system: flows, pumps and lift stations, manholes, modelling, inflow and infiltration, ability to meet existing and future capacity;
- Treatment: quality and ability to meet provincial permits and registrations, federal standards, physical treatment works, emergency power backup;
- Effluent Disposal system: effectiveness, reserve fields, emergency power back up;
- Plans and Programs: identification of upgrades required to bring systems into conformity with CVRD standards, provincial and federal regulations, including Capital upgrade plans; and,
- Financial Strategy: incorporating real cost of operation and maintenance, proposed capital upgrades.

## APPENDIX B

### *SAMPLE ASSET INVENTORY FORM*



## APPENDIX B – SAMPLE ASSET INVENTORY FORM

COWICHAN VALLEY REGIONAL DISTRICT																				
ASSET INVENTORY FORM - INVENTORY FOR WATER AND SEWER UTILITIES V1.0																				
Updated Dec 7, 2017																				
No.	Location		Asset Code				Asset Inventory												Installed Value	
	System	Location / Address	Major	Minor	Spec	ID	Asset Code	Photo	Description	Make	Model	Material	Quantity	Quantity Unit	Year Installed	Year Renewed	Service Life Expectancy	Est. Remaining Service Life	\$/unit	\$
1			W	WTP	PMP		W-WTP-PMP-													
2			S	LG			S-LG--													
3							---													
4							---													
5							---													
6							---													
7							---													
8							---													
9							---													
10							---													
11							---													
12							---													
13							---													
14							---													
15							---													
16							---													
17							---													
18							---													
19							---													
20							---													

# Categories

Major	
Major	Category
W	Water
S	Sanitary
D	Storm / Drainage
R	Roads

Minor Water	
W	Sub-Category
PP	Watermain (Pipe)
WTP	Treatment Plant
PS	Pump Station
RES	Reservoir
TNK	Water Tank
FILL	Truck Fill

Minor Sanitary	
S	Sub-Category
STP	Wastewater Treatment Plant (Sewage Treatment Plant)
LG	Lagoons
LS	Lift Station
FM	Forcemain
SS	Sewermain

Specific Water	
Code	Sub-Category
PP	Distribution System Component
HYD	Fire Hydrant
FT	Fitting
PRV	Pressure Reducing Valve
SL	Service Line
CV	Control Valve
SPL	Sampling Station
VAL	Valve
ARV	Air Release Valve Station
FMC	Flow Meter Chamber
CO	Clean Out/ Blow Off

WTP Water Treatment Plant Components	
WLL	Groundwater Well
INT	Surface Water Intake
PMP	Pump
WW	Wet Well
FM	Flow Meter
FMC	Flow Meter Chamber
SPL	Sampling Station
CH	Chlorine System
IQ	Chemical Injection Quill
COA	Coagulation and Flocculation System
CON	Contact Pipe or Chamber
UV	UV Reactor
FTR	Filtration System
BKW	Backwash System
NTU	Turbidity Analyser
IV	Isolation Valve
CV	Control Valve
AV	Mechanically Actuated Valve
ARV	Air Release Valve
PRV	Pressure Reducing Valve
ELC	Electrical
COM	Instrumentation, Controller, SCADA
HVC	Heating and Ventilation System

PS Pumping Station	
PMP	Pump
WW	Wet Well
FM	Flow Meter
FMC	Flow Meter Chamber
CV	Control Valve
SPL	Sampling Station
IV	Isolation Valve
AV	Mechanically Actuated Valve
ARV	Air Release Valve
PRV	Pressure Reducing Valve
ELC	Electrical
COM	Instrumentation, Controller, SCADA
HVC	Heating and Ventilation System

RES Reservoir and Water Tank	
PMP	Pump
WW	Wet Well
FM	Flow Meter
FMC	Flow Meter Chamber
CV	Control Valve
SPL	Sampling Station
IV	Isolation Valve
AV	Mechanically Actuated Valve
ARV	Air Release Valve
PRV	Pressure Reducing Valve
ELEC	Electrical
COM	Instrumentation, Controller, SCADA
HVAC	Heating and Ventilation System
TNK	Above Ground Steel Bolted Tank
RES	Concrete Reservoir

TNK Reservoir and Water Tank	
PMP	Pump
WW	Wet Well
FM	Flow Meter
FMC	Flow Meter Chamber
CV	Control Valve
SPL	Sampling Station
IV	Isolation Valve
AV	Mechanically Actuated Valve
ARV	Air Release Valve
PRV	Pressure Reducing Valve
ELEC	Electrical
COM	Instrumentation, Controller, SCADA
HVAC	Heating and Ventilation System
TNK	Above Ground Steel Bolted Tank
RES	Concrete Reservoir

Specific Sanitary	
Code	Sub-Category
SS	Gravity Collection System Components
S	Gravity Sewermain
SV	Service Line
MH	Gravity Sewermain
DS	Drop Structure

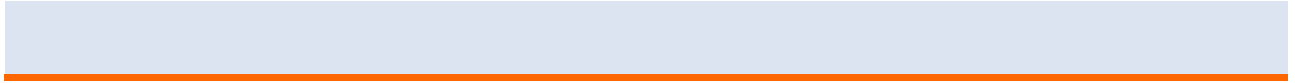
FM Sanitary Forcemain	
CO	Cleanout
VL	Valve
ARV	Air Relief Valve
FM	Flow Meter

STP Wastewater Treatment Plant Components	
PMP	Pump
WW	Wet Well
FM	Flow Meter
FMC	Flow Meter Chamber
SPL	Sampling Station
CH	Chlorine System
IQ	Chemical Injection Quill
COA	Coagulation and Flocculation System
CON	Contact Pipe or Chamber
UV	UV Reactor
FTR	Filtration System
BKW	Backwash System
SLG	Sludge Drying Beds
NTU	Turbidity Analyser
IV	Isolation Valve
AV	Mechanically Actuated Valve
CV	Control Valve
ARV	Air Release Valve
PRV	Pressure Reducing Valve
ELC	Electrical
COM	Instrumentation, Controller, SCADA
HVC	Heating and Ventilation System

LS Lift Station	
PMP	Pump
WW	Wet Well
FM	Flow Meter
FMC	Flow Meter Chamber
CV	Control Valve
SPL	Sampling Station
IV	Isolation Valve
AV	Mechanically Actuated Valve
ARV	Air Release Valve
PRV	Pressure Reducing Valve
ELEC	Electrical
COM	Instrumentation, Controller, SCADA
HVC	Heating and Ventilation System

## APPENDIX C

### *UTILITY ASSESSMENT MATRIX*



## APPENDIX C – UTILITY ACQUISITION ASSESSMENT MATRIX

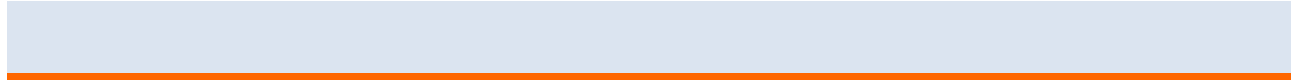
<b>SYSTEM STATS</b>	<b>Comments/ Details</b>
Type of System; water, sewer, drainage, street lighting	
Number of parcels served	
Number of parcels at build out	
Number of connections	
<b>WATER SYSTEMS</b>	<b>Comments/ Details</b>
Water Source	
Number of wells	
Is the well licence registration process complete	
Alternative water source	
Treatment type	
Treatment compliant with:	
Regulations	
Best Practices	
Secondary disinfection	
Other treatment	
Iron &/or Manganese	
Arsenic	
Other	
Has there been a water advisory or boil order in place in the past	
Is a source water protection plan in place	
Does licence meet source capacity	
Current health risks - Documented waterborne outbreak / illnesses	
Are upgrades required to the water source	
Are upgrades required to the water treatment system	
Are upgrades required to the water distribution system	
Potential to bring about water service provision improvements	
Water meters in place	
Risk of waterborne illness	
<b>CONSERVATION /GOVERNANCE</b>	<b>Comments/ Details</b>
Conservations measures in place	
Current Governance - Private / Improvement District / Strata	
Community sentiment towards and acceptance of demand style management	
General sentiment for transfer - no interest /supportive/ desperate	
<b>SEWER SYSTEM</b>	<b>Comments/ Details</b>
Type of treatment system	
Permit or Registrations	
Class of effluent disposal	
Back up disposal in place	
Treatment compliant with:	
Regulations	
Best Practices	
Other treatment requirements	
Has there been a compliance advisory in place in the past	
Does permit / registration meet compliance	

Does system have capacity	
Are upgrades required to the collection system	
Are upgrades required to the sewer treatment system	
Are upgrades required to the disposal system	
Potential to bring about sewer service provision improvements	
<b>POTENTIAL TO REALIZE ECONOMIES OF SCALE</b>	<b>Comments/ Details</b>
Location - proximity to another town or village	
Location - proximity to another CVRD water system	
Location - proximity to another potential water system	
Does the infrastructure meet CVRD requirements and best practices	
Is there potential to integrate amalgamate/operate/manage with other CVRD systems	
Current system EOCP rating	
Water system EOCP rating - after upgrades	
Estimated peak week operation hours required	
Estimated annual operation hours required	
Does CVRD currently have staff, skills, training and time to operate system	
<b>FINANCIAL IMPLICATIONS</b>	<b>Comments/ Details</b>
Value of physical assets including infrastructure, real estate, equipment, supplies	
Current annual system budget	
Value of reserves, trusts and other financial assets	
Annual rates	
Existing debt	
Estimated rates with CVRD ownership	
Estimated annual revenue from cost recovery - taxes, charges, fees	
Is a capital plan in place	
is the system escheated	
Likelihood of receiving funding for recommended upgrades	
<b>RISK EXPOSURE</b>	<b>Comments/ Details</b>
Age of distribution system	
Condition of distribution system	
System assessment completed by an industry professional	
Are legal easements / Rights of way in place to protect infrastructure	
System records provide adequate information for assessment and operation	
Sufficient background information available for design of system	
Emergency response plan in place	
Area all required permits and licenses in place	
Pending lawsuits, legal claims or other legal action related to the system	
Does system have redundancy for mechanical / electrical equipment	
Stand by power	
Does system have sufficient equipment for operator protection and safety	
Measures in place to protect from vandalism & tampering	
Will new infrastructure require Ministry approval which may delay upgrades	
Exposure to risk	
Overall applicant system ranking	



## **APPENDIX D**

### ***WORK SAFE HAZARD/RISK ASSESSMENT***



1. GENERAL DETAILS			
SYSTEM:		AUDITORS:	
UTILITY ASSESSED:			

2. IDENTIFIED HAZARD/RISKS – SECTION A. HEALTH/SAFETY & LIFE SAFETY (WCB ACT & WSBC OHSR)						
AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
A. HEALTH/SAFETY & LIFE SAFETY (WCB ACT & WSBC OHSR)						
PART 3: RIGHTS AND RESPONSIBILITIES						
<i>Workplace Inspections</i>						
• Regular hazard inspections	S.3.5					
<i>Correction of Unsafe Conditions</i>						
• Reporting/correction system	S.3.10					
• Prompt remedy of unsafe/ harmful conditions	S.3.9, 3.11					
<i>Occupational First Aid</i>						
• Workers currently first aid trained	S.3.15					
• System/reporting/procedures	S.3.16, 3.17					
<i>Young and New Workers</i>						
• Young/new workers	S.3.22					
• Orientation/training system	S.3.23					
PART 4: GENERAL CONDITIONS						
<i>Buildings, Structures, Equipment and Site Conditions</i>						
• Wildlife hazards	S.4.1					
• Wildlife interaction system/ program/procedures	A. Part 3, Div 3, S.115					
• Tools/machines/equipment condition (poor/unsafe)	S.4.3, 12.10					
• Missing rated capacities/info (where applicable)	S.4.7					
<i>Emergency Preparedness and Response</i>						
• Hazards requiring rescue/ evacuation (e.g. high angle, confined space, haz. substances, water on/over work	S.4.13					



# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION A. HEALTH/SAFETY & LIFE SAFETY (WCB ACT & WSBC OHSR)

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
etc.)						
• Response plan/procedures (evacuation, spill etc.)	S.4.14, 5.97-5.101					
<b>Working Alone or in Isolation</b>						
• Hazard	S.4.20.2					
• System/procedures	S.4.21					
<b>Violence in the Workplace</b>						
• Hazards	S.4.28					
• System/procedures	S.4.29					
<b>Work Area Requirements</b>						
• Safe access/egress to/from site(s), pathways	S.4.32, 4.33					
• Hazardous work areas restricted (including public safety)	S.4.34					
• Slips/trips	S.4.39					
• Liquid material accumulation (improper drainage)	S.4.40					
• Hazardous accumulation of waste materials	S.4.41					
<b>Storing and Handling Materials</b>						
• Materials/equipment placement/storage	S.4.43					
• Entrapment/engulfment hazards from loose materials	S.4.44					
<b>Ergonomics (MSI) Requirements</b>						
• MSI risk factors/hazards	S.4.47-4.49					
<b>Work Area Guards and Handrails</b>						
• Area guarding	S.4.55					
Areas >4 ft above grade	S.4.55(a)					
Walkways over haz. substances/machinery	S.4.55(b)					
Open areas (pits, vats etc.) >4 ft deep	S.4.55(c)					
Areas leading to traffic/hazardous location(s)	S.4.55(d)					

## 2. IDENTIFIED HAZARD/RISKS – SECTION A. HEALTH/SAFETY & LIFE SAFETY (WCB ACT & WSBC OHSR)

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
• Elevated work platform guarding	S.4.57					
• Guard/guardrail specifications/ installation	S.4.58					
• Floor/roof opening covering/ guarding	S.4.59					
• Danger of falling tools/ materials/equipment (no/improper toeboards)	S.4.60					
• Elevated walkway access width (<20" wide/unsafe)	S.4.61					
• Stairway handrails (>4 risers)	S.4.62					
<b>Illumination</b>						
• Work area illumination	S.4.65					
• Emergency lighting systems (work areas/exit routes)	S.4.69					
<b>Environmental Tobacco Smoke</b>						
• Workplace smoking	S.4.81(a)					
• Outdoor smoking locations (<10 ft from openings)	S.4.81(b)					
<b>PART 5: CHEMICAL AGENTS AND BIOLOGICAL AGENTS</b>						
<b>Workplace Hazardous Materials Information System (WHMIS)</b>						
• Hazardous controlled products (used, stored, handled, transported)	S.5.3, 5.4					
• System/program/procedures	S.5.5					
• Labels (supplier, decanted)	S.5.8, 5.10					
• Material Safety Data Sheets (>3 years old, not available/present)	S.5.14, 5.16					
<b>Containers and Storage</b>						
• Condition of/integrity/covers	S.5.20-5.22					
• Incompatible substances	S.5.24					
• Designated area storage						
Storage practices (fall, dislodgement, damage etc.)	S.5.25					
Design/construction, labels/ID, safe movement, ventilation/	S.5.26					

## 2. IDENTIFIED HAZARD/RISKS – SECTION A. HEALTH/SAFETY & LIFE SAFETY (WCB ACT & WSBC OHSR)

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
lighting, non-occupation areas						
<b>Flammable and Combustible Substances</b>						
• Hazards, ignition sources	S.5.27					
• Grounding/bonding, electrostatic charge	S.5.28, 5.29					
• Flammable gas/vapour (>20% LEL)	S.5.31					
• Permitted quantities (over)	S.5.33					
• Combustible materials (in storage room/cabinet)	S.5.34					
• Cabinet vent duct (<2", not directly connected to outdoors)	S.5.35					
<b>Substances Under Pressure</b>						
• Pressurized containers (not protected from ignition sources, damage)	S.5.36					
• Handling/storage	S.5.38					
• Cylinder markings/valves	S.5.39, 5.40					
• Empty cylinder ID/storage	S.5.43					
• Acetylene cylinders (not upright, copper fittings/tubes)	S.5.44, 5.45					
• Oxygen restrictions	S.5.46					
• O <sub>2</sub> cylinder part cleanliness	S.5.47					
<b>Controlling Exposure</b>						
• Chemical/biological agent exposures (pot. over limits)	S.5.48					
• Workplace monitoring (substances at 50% or over EL)	S.5.53					
• Exposure control systems/ plans/procedures	S.5.54, 5.57					
<b>Ventilation</b>						
• Designed, installed, maintained	S.5.60-5.63					
• Contaminant control via LEV, general ventilation/both	S.5.64					
• Ventilation openings (blocked)	S.5.66					
• Discharged air (re-entrainment)	S.5.70					



# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION A. HEALTH/SAFETY & LIFE SAFETY (WCB ACT & WSBC OHSR)

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
<ul style="list-style-type: none"> <li>Dedicated exhaust system for flammable/combustibles</li> </ul>	S.5.71					
<b>Personal Hygiene</b>						
<ul style="list-style-type: none"> <li>Contamination of workers' skin/clothing from haz. substance(s)</li> </ul>						
<ul style="list-style-type: none"> <li>De-contamination controls</li> </ul>	S.5.82					
<b>Emergency Washing Facilities</b>						
<ul style="list-style-type: none"> <li>Eye/skin hazards from harmful/corrosive materials</li> </ul>	S.5.85					
<ul style="list-style-type: none"> <li>Water supply (plumbed, solution)</li> </ul>	S.5.86					
<ul style="list-style-type: none"> <li>Equipment accessibility</li> </ul>	S.5.87					
<ul style="list-style-type: none"> <li>Washing facilities/equipment</li> </ul>	S.5.89, 5.91					
<ul style="list-style-type: none"> <li>Signage</li> </ul>	S.5.92					
<ul style="list-style-type: none"> <li>Testing (full flow testing &gt;1 per month, complete line flush)</li> </ul>	S.5.93					
<ul style="list-style-type: none"> <li>Protection of lines from freezing</li> </ul>	S.5.95					
<b>PART 6: SUBSTANCE SPECIFIC REQUIREMENTS</b>						
<b>Asbestos</b>						
<ul style="list-style-type: none"> <li>Containing materials on site(s), inventory</li> </ul>	S.6.4, 6.5					
<ul style="list-style-type: none"> <li>System/plans/procedures</li> </ul>	S.6.3, 6.6, 6.8					
<b>Lead</b>						
<ul style="list-style-type: none"> <li>Hazards (i.e. removal of lead based paint)</li> </ul>	S.6.59					
<ul style="list-style-type: none"> <li>System/plans/procedures</li> </ul>	S.6.60					
<b>PART 7: NOISE, VIBRATION, RADIATION AND TEMPERATURE</b>						
<b>Noise</b>						
<ul style="list-style-type: none"> <li>Occupational noise exposures (&gt;85 dBA)</li> </ul>	S.7.2					
<ul style="list-style-type: none"> <li>Noise measurement, exemption</li> </ul>	S.7.3, 7.4					
<ul style="list-style-type: none"> <li>Program/procedures/controls</li> </ul>	S.7.5, 7.7					
<ul style="list-style-type: none"> <li>Posting of warning signs</li> </ul>	S.7.7					
<ul style="list-style-type: none"> <li>Hearing tests annually</li> </ul>	S.7.8					
<b>Vibration</b>						

## 2. IDENTIFIED HAZARD/RISKS – SECTION A. HEALTH/SAFETY & LIFE SAFETY (WCB ACT & WSBC OHSR)

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
• Occupational vibration exposures (pot. over limits)	S.7.11					
• Vibration measurement	S.7.12					
• Plan/procedures	S.7.13					
• Labels (not present on equipment/machinery)	S.7.15					
<b>Radiation</b>						
• Radiation (ionizing/non-ionizing) exposures (pot. over limits)	S.7.18					
• Plan/procedures	S.7.20					
<b>Thermal Exposure</b>						
• Heat stress hazards	S.7.27, 7.28					
• Assessment, plans/procedures, controls	S.7.29-7.32					
• Cold stress hazards	S.7.33					
• Assessment, plans/procedures, controls	S.7.34-7.38					
<b>PART 8: PERSONAL PROTECTIVE EQUIPMENT</b>						
• PPE provided by Employer	S.8.2					
• Selected, used, maintained	S.8.3					
• Hazards requiring use of PPE, evaluation	S.8.4					
• Program/procedures	S.8.5					
• On-site PPE appropriateness/ condition (incorrect/poor/ unsafe)						
Safety headgear	S.8.11					
Eye/face protection	S.8.14-8.18					
Limb/body protection	S.8.19-8.21					
Footwear	S.8.22, 8.23					
High visibility/distinguishing apparel	S.8.24, 8.25					
Buoyancy equipment	S.8.26-8.30					
Flame resistant clothing	S.8.31					
Respirators	S.8.32-8.45					





# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION A. HEALTH/SAFETY & LIFE SAFETY (WCB ACT & WSBC OHSR)

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
PART 9: CONFINED SPACES						
General Requirements						
<ul style="list-style-type: none"><li>Space identification, inventory</li></ul>	S.9.2, 9.5					
<ul style="list-style-type: none"><li>System/program/procedures</li></ul>	S.9.5, 9.10, 9.41					
Hazard Assessment and Work Procedures						
<ul style="list-style-type: none"><li>Hazards assessed, procedures developed</li></ul>	S.9.9, 9.10					
PART 10: DE-ENERGIZATION AND LOCKOUT						
<ul style="list-style-type: none"><li>Hazardous energy sources</li></ul>	S.10.2					
<ul style="list-style-type: none"><li>System/program/procedures</li></ul>	S.10.3-10.12					
<ul style="list-style-type: none"><li>Equipment (locks, hasps etc.)</li></ul>	S.10.4(2),(4)					
PART 11: FALL PROTECTION						
<ul style="list-style-type: none"><li>Hazards present (&gt;10 ft and/or unusual risk of injury)</li></ul>	S.11.2					
<ul style="list-style-type: none"><li>Hierarchy of controls</li></ul>	S.11.2					
Guardrail system(s)	S.11.2(2)					
Fall restraint system(s)	S.11.2(3)					
Fall arrest system(s)	S.11.2(4)					
Safety control zone/alternate	S.11.2(5)					
<ul style="list-style-type: none"><li>Hazards present (&gt;25 ft)</li></ul>	S.11.3					
<ul style="list-style-type: none"><li>System/program/plans/ procedures</li></ul>	S.11.2(6), 11.3, 11.9, 11.10					
<ul style="list-style-type: none"><li>On-site fall protection gear appropriateness/condition (incorrect/poor/ unsafe)</li></ul>						
Harness/safety belt	S.11.4					
Equipment standards	S.11.5					
Anchors, engineer certifications	S.11.6, 11.8					
PART 12: TOOLS, MACHINERY AND EQUIPMENT						
General Requirements						
<ul style="list-style-type: none"><li>Machine/equipment safeguarding</li></ul>	S.12.2-12.6					
<ul style="list-style-type: none"><li>Machinery location endangering</li></ul>	S.12.12					



# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION A. HEALTH/SAFETY & LIFE SAFETY (WCB ACT & WSBC OHSR)

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
workers (pathways, adjacent operation)						
• Physical hazard markings	<i>S.12.13</i>					
<b>Guarding Mechanical Power Transmission Parts</b>						
• Rotating hazards	<i>S.12.16-12.21</i>					
<b>Conveyors</b>						
• Guarding re: belt, screw type	<i>S.12.23, 12.24</i>					
• Feed point guarding (no suitable devices/tools)	<i>S.12.25</i>					
• Falling material hazards/guards	<i>S.12.27</i>					
• Emergency stopping devices	<i>S.12.28</i>					
<b>PART 13: LADDERS, SCAFFOLDS AND TEMPORARY WORK PLATFORMS</b>						
<b>Ladders</b>						
• Condition of	<i>S.13.13</i>					
• Grade of material/use markings	<i>S.13.4</i>					
• Side rails extension above uppermost landing (<3 ft)	<i>S.13.5</i>					
<b>Work Platforms/Scaffolds</b>						
• Equipment/hazards present	<i>S.13.8, 13.11, 13.13</i>					
• Scaffold platform minimum requirements	<i>S.13.14</i>					
• Rated load info (labels, documents)	<i>S.13.15</i>					
<b>Movable Work Platforms</b>						
• Equipment/hazards present						
• Rated capacity markings	<i>S.13.20</i>					
• Manuals/instructions/procedures	<i>S.13.21</i>					
• Warning devices (horn, light)	<i>S.13.25</i>					
• Controls (hold to run, inadvertent operation, emergency stop)	<i>S.13.26</i>					
• Fall protection system (where required)	<i>S.13.33</i>					
<b>CONTRACTOR SAFETY</b>						

## 2. IDENTIFIED HAZARD/RISKS – SECTION A. HEALTH/SAFETY & LIFE SAFETY (WCB ACT & WSBC OHSR)

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
• Contractor exposure to site hazards	A. Part 3, Div 3, S.115, 118, S.4.1, 20.3					
• System/program/procedures						
END SECTION						

## SECTION A. NOTES/COMMENTS


## 2. IDENTIFIED HAZARD/RISKS – SECTION B. FIRE/LIFE SAFETY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
B. FIRE/LIFE SAFETY						
Fire/Life Safety Documents						
<ul style="list-style-type: none"><li>Fire safety plan (available, posted/present)</li></ul>	WSBC S.4.14 BCFC 2.8.1.1					
<ul style="list-style-type: none"><li>Fire instruction notice(s) (completed, posted, etc.)</li></ul>	NFPA 10, 10-31 Annex C WSBC S.4.14 BCFC 2.8.2.7					
<ul style="list-style-type: none"><li>Emergency information list</li></ul>	WSBC S.4.14					
<ul style="list-style-type: none"><li>Emergency response plan/ procedures (earthquake, flood, spill etc.)</li></ul>	WSBC S.4.14					
<ul style="list-style-type: none"><li>Evacuation plans (escape routes, fire extinguisher</li></ul>	BCFC 2.8.2.7					



# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION B. FIRE/LIFE SAFETY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
locations etc.)	WSBC S.4.14					
<b>Fire Separations BCFC 2.2.2.4</b>						
• Penetrations/holes (present)	BCFC 2.2.1.2					
• Adequacy of fire separations	BCFC 2.2.1.1 2)					
• Damage (none, or state of disrepair)	BCFC 2.2.1.2					
• Automatic hold open device interference	BCFC 2.7.2.1 4)					
• Flame spread rating	B.C.B.C. 3.1.13.2+Table					
• Stops/dampers	B.C.F.C. 2.2.2.1/2.2.2.2.					
<b>Fire Closures BCFC 2.2.2</b>						
• Fire separations/closure state	B.C.F.C. 2.2.1.2. (d) 2.2.2.2. (A)					
• Closures/separations	B.C.B.C. 3.1.8.4					
• Self-closing devices (present, state)	B.C.F.C. 2.2.2.4 1)-5)					
• Fire resistance rating	NFPA 705 B.C.B.C. 3.1.7.1					
• Signage ("fire door keep closed")	B.C.F.C. 2.2.2.5. (F)					
<b>Exit Doors</b>						
• Opening (outward)	B.C.B.C. 3.4.6.10					
• Blocked/locked	B.C.F.C. 2.7.2.1 (c)					
• Wedged open (unless have hold open devices)	B.C.F.C. 2.2.2.4. (d)					
• Fire separation doors (state, working order, integrity)	B.C.F.C. 2.2.2.1					
<b>Exit Doors (Latching)</b>						

## 2. IDENTIFIED HAZARD/RISKS – SECTION B. FIRE/LIFE SAFETY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
• Excessive force required to open	<i>B.C.F.C. 2.7.2.1 (a)</i>					
• Latching (improper latching)	<i>B.C.F.C. 2.2.2.4 (b)</i>					
• Latching present/hardware	<i>B.C.F.C. 2.2.2.4 (c-d)</i>					
<b>Exit Passages (Blocked) B.C.F.C. 2.7.1.6.</b>						
• Exterior fire exits (locked)	<i>B.C.F.C. 2.7.2.1</i>					
• Exterior fire exit stairs (snow & ice) + equipment to clear	<i>B.C.F.C. 2.7.1.7 (1) (2)</i>					
• Existence	<i>B.C.B.C 3.4.1.4/3.4.2.1</i>					
• Means of egress (clear, free of debris/materials, not locked)	<i>B.C.F.C. 2.7.2</i>					
<b>Exit Doors (Operation)</b>						
• Closure functioning/self-closing device	<i>B.C.F.C. 2.7.1.1. B.C.B.C.3.4.1.4.</i>					
• Exit door swing (not in direction of exit travel)	<i>B.C.B.C. 3.3.1.11</i>					
• Hardware (improper)	<i>B.C.B.C. 3.4.6.15/3.3.2.7</i>					
• Self-closing devices (propped, wedged open)	<i>B.C.F.C. 2.2.2.4.(d)</i>					
<b>Exit Signs/Lights</b>						
• Existence (clear, proper, posted)	<i>NFPA 170 S.4, Table 4.2 BC Fire Code 2.7.3.1. Appendix A B.C.B.C. 3.4.5.1</i>					
• Directional arrows (not in direction of travel, no indication)	<i>B.C.F.C. 2.7.3.1 (1)-(3)</i>					



# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION B. FIRE/LIFE SAFETY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
• Illumination (unlit)	<i>B.C.F.C. 2.7.3.1 (c)</i>					
• Obstructions	<i>B.C.F.C. 2.7.3.1 (d)</i>					
<b>Emergency Lighting</b>						
• Existence	<i>WSBC 4.69(3) B.C.B.C.3.2.7</i>					
• Operation/functioning	<i>WSBC 4.69(3) B.C.F.C. 6.5.1.1</i>					
• Lighting test/test log	<i>B.C.F.C. 6.5.1.4. 6.5.1.7</i>					
• Building generator/emergency power maintenance (maintenance, documents)	<i>B.C.F.C. 6.5.1.4. 6.5.1.6</i>					
• Emergency power records (not written)	<i>B.C.F.C. 6.5.1.4. (f)</i>					
<b>Heating System</b>						
• Combustibles storage (by gas heaters) (min. 300mm clearance)	<i>B.C.F.C. 3.2.6.5</i>					
<b>Combustibles in Service Room</b>						
• Combustible stored	<i>B.C.F.C. 2.3.6.1</i>					
<b>Electrical Panel</b>						
• Panel cover presence (missing, removed)	<i>B.C.F.C. 5.1.2.2</i>					
• Obstructions (1m clearance)	<i>B.C.F.C. 5.1.2.2 (b)</i>					
<b>Electrical Wiring, Cord Use, Room Storage</b>						
• Termination (improper)	<i>B.C.F.C. 5.1.2.2</i>					
• Junction box/electrical outlet covers (missing)	<i>B.C.F.C. 5.1.2.2</i>					
• Extension cords (not used properly)	<i>B.C.F.C. 5.1.2.2</i>					
• Combustibles stored in	<i>B.C.F.C.</i>					



# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION B. FIRE/LIFE SAFETY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
Electrical Service Room	2.6.3.1.					
•						
<b>Fire Extinguishers</b>						
• Existence (availability, visibility)	NFPA 170 S.4, Table 4.2 B.C.F.C. 6.2.1.1. (a)					
• Obstructions	B.C.F.C. 6.2.1.1. (b)					
• Annually serviced	B.C.F.C. 6.2.1.1. (a)					
• Hydrostatic test	B.C.F.C. 6.2.1.1. (a)					
• Label/tag	B.C.F.C. 6.2.1.1. (c)					
• Location	B.C.F.C. 6.2.1.1. (a) NFPA 10					
• Mounting (<40 lbs. – top !5' off floor; >40 lbs. – !3.5' off floor, bottom of extinguisher/floor >4")	NFPA 10					
<b>Standpipe/Hose</b>						
• Controls tagged	B.C.F.C. 6.4.1. NFPA 25					
• Annual servicing/5 year flow testing	B.C.F.C. 6.4.1.1. NFPA 25					
• Nozzle presence	B.C.F.C. 6.4.1.1. NFPA 25					
• Fire hose testing	B.C.F.C. 6.4.1.1. NFPA 25					
• Hose stations/cabinets (blocked, improper use)	B.C.F.C. 6.4.1.1. NFPA 25					
• Standpipe records (availability)	B.C.F.C. 6.4.1.1. NFPA 25					



# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION B. FIRE/LIFE SAFETY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
• Standpipe cap presence	<i>B.C.F.C. 6.4.1.1 NFPA 25</i>					
• Standpipe Only: Fire department connections – protective caps	<i>B.C.F.C. 6.4.1.1. NFPA 25</i>					
<b><i>Sprinkler System</i></b>						
• Annual servicing/records	<i>B.C.F.C. 6.4.1.1. NFPA 25</i>					
• Rack storage height (>12')	<i>B.C.F.C. Div.B Part 3</i>					
• General/palletized storage	<i>B.C.F.C. 3.2.2.4</i>					
• Main sprinkler valve obstructions	<i>B.C.F.C. 6.4.1.1. e) NFPA 25</i>					
• High-piled storage (>12')	<i>B.C.F.C. Div.B Part 3</i>					
• Head cleaning (excessive accumulation/grease)	<i>B.C.F.C. 6.4.1.1. NFPA 25</i>					
• Heads painted	<i>B.C.F.C. 6.4.1.1. NFPA 25</i>					
• Type of head (incorrect)	<i>B.C.F.C. 6.4.1.1. NFPA 25</i>					
• Obstructions	<i>B.C.F.C. 6.4.1.1. NFPA 25</i>					
• Number of spare heads (insufficient; <6)	<i>B.C.F.C. 6.4.1.1. NFPA 25</i>					
• Sprinkler wrench presence	<i>B.C.F.C. 6.4.1.1. NFPA 25</i>					
• Sprinkler system adequacy	<i>B.C.F.C. 2.1.3.6.</i>					
<b><i>Fire Department Connections</i></b>						





# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION B. FIRE/LIFE SAFETY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
• Signs, caps, location	<i>B.C.F.C. 2.1.3.1.</i>					
• Location identification (not clearly ID)	<i>B.C.F.C. 2.1.3.1.</i>					
<b>Valve Inspections</b>						
• Sprinkler control valves	<i>B.C.F.C. 6.4.1.1.</i>					
• Location/security (not chained, locked)	<i>B.C.F.C. 6.4.1.1.</i>					
• Signage	<i>B.C.F.C. 2.1.3.1.</i>					
<b>Fire Alarm Panel</b>						
• Bell functioning	<i>B.C.F.C. 6.3.1.1.</i>					
• Upgrade	<i>B.C.F.C. 2.1.3.1.</i>					
• Monitoring required	<i>B.C.F.C. 6.3.1.3.</i>					
• Annual system servicing	<i>B.C.F.C. 6.3.1.2.</i>					
• Local alarm only manual pull stations	<i>B.C.F.C. 6.3.1.1.</i>					
• Fire alarm test log	<i>B.C.F.C. Div. C Part 2</i>					
• Annual maintenance/service tag	<i>B.C.F.C. 6.3.1.2.</i>					
<b>Annunciator Panel</b>						
• Existence/presence	<i>B.C.F.C. 2.1.3.1</i>					
• Functioning	<i>B.C.F.C. 2.1.3.7</i>					
• Location (incorrect (main building entrance))	<i>B.C.F.C. 2.1.3.1</i>					
<b>Smoke Detectors</b>						
• Presence	<i>B.C.F.C. 2.1.3.1</i>					
• Alarm maintenance	<i>B.C.F.C. 2.1.3.7.</i>					
• Installation	<i>B.C.F.C.</i>					



# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION B. FIRE/LIFE SAFETY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
	2.1.3.1					
<b>Housekeeping, Storage</b>						
• Fire spread conditions; materials keep to operational minimum (exceedance)	B.C.F.C. 3.2 /3.3					
• Quantity of stored material debris	B.C.F.C. 2.4.1.1.					
• Storage height (>12')	B.C.F.C. 3.2.3.-3.2.9. incl					
• Greasy/oily rags (not proper container, closed)	B.C.F.C. 2.4.1.1.					
• Waste materials regularly disposed of	B.C.F.C. 2.4.1.1.					
• Materials/debris near light fittings, electrical wiring/ sockets/panels, sprinkler heads, smoke detectors (<18", <36" if storage over 12')	B.C.F.C. 2.4.1 B.C.F.C. 3.2.3.-3.2.9. incl.1.					
<b>Inspection, Testing Requirements – Fire/Life Safety Systems</b>						
• Air-conditioning/ventilation (with fire dampers/auto cut out devices) maintained regularly	WSBC S.4.78 B.C.F.C. 2.1.3.7.					
• Emergency lighting systems (2 lights min./tested/replaced)	B.C.F.C. 2.7.3.1./6.5.					
• Above-ground storage tanks (inspection, proper tank design/ specifications i.e. double- walled)	B.C.F.C. 4.3.1.2./4.3.2					
• Below-ground storage tanks (proper tank design/ specifications i.e. double- walled, leak testing/detection)	B.C.F.C. 4.3.1.2./4.3.8.					
<b>Aisles/Egress</b>						
• Aisle ways (improper width)	B.C.F.C. 3.2.2.2					
• Indoor storage (inadequate access to exit)	B.C.F.C. 3.2.2.2					
• Indoor storage (inadequate wall clearances)	B.C.F.C. 3.2.2.3.					
<b>Washing Facilities/Equipment</b>						



# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION B. FIRE/LIFE SAFETY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
<ul style="list-style-type: none"> <li>Hand washing facilities (available, suitable, sufficient)</li> </ul>						
<b>Drinking Water Systems</b>						
<ul style="list-style-type: none"> <li>Water available at utility site</li> </ul>	WSBC 4.85					
Potable	WSBC 7.31					
If not potable, signage warning against consumption	WSBC 4.87					
<b>Ventilation</b>						
<ul style="list-style-type: none"> <li>Location of waste treatment ventilation discharge points</li> </ul>	WSBC Ch. 5					
Re-entrainment	WSBC 5.69					
<b>END SECTION</b>						

## SECTION B. NOTES/COMMENTS




# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION C. SECURITY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
<b>C. SECURITY</b>						
<ul style="list-style-type: none"> <li>Current (w/i &lt;2 yrs) TRA (Threat Risk Asst) that looks at: 1) company threats 2) risk/ impact of threat</li> </ul>	N/A					
<ul style="list-style-type: none"> <li>Remote location</li> </ul>						
<ul style="list-style-type: none"> <li>Large industrial area nearby</li> </ul>						
<ul style="list-style-type: none"> <li>Facility/Utility part of critical infrastructure (open/subject to threats/risks)</li> </ul>						
<ul style="list-style-type: none"> <li>Nearby location that may attract criminal elements or similar issues</li> </ul>						
<ul style="list-style-type: none"> <li>Valuables on site (theft potential, past thefts)</li> </ul>						
<ul style="list-style-type: none"> <li>Work alone hazards</li> </ul>						
<ul style="list-style-type: none"> <li>Potable water system tamper warnings/alarms</li> </ul>						
<ul style="list-style-type: none"> <li>Potable water access hatches (improperly secured)</li> </ul>						
<ul style="list-style-type: none"> <li>Tree, bush, plant locations (hiding spots)</li> </ul>						
<ul style="list-style-type: none"> <li>Outdoor lighting levels/ locations (low, poor)</li> </ul>						
<ul style="list-style-type: none"> <li>Fencing (missing, damaged)</li> </ul>						
<ul style="list-style-type: none"> <li>Surveillance monitoring (needed &amp; not present)</li> </ul>						
<ul style="list-style-type: none"> <li>Access control systems (key/visitor control, ID cards)</li> </ul>						
<ul style="list-style-type: none"> <li>Technical systems (alarms, key cards, CCTV, remote monitoring)</li> </ul>						
<ul style="list-style-type: none"> <li>Fraud/loss prevention systems (inventory control)</li> </ul>						
<ul style="list-style-type: none"> <li>Policy/procedures re: security issues ID above (missing, inadequate)</li> </ul>						
<ul style="list-style-type: none"> <li>Worker/manager training re:</li> </ul>						



# HAZARD/RISK ASSESSMENT

System Name

## 2. IDENTIFIED HAZARD/RISKS – SECTION C. SECURITY

AUDIT ITEM	REGULATION /REFERENCE	POTENTIAL HAZ/ISSUE			RISK (L/M/H)	NOTES/OBSERVATIONS
		Y	N	N/A		
security issues ID above						
• New employee pre-screening						
• High-risk termination policy (missing, inadequate)						
• Business continuity plan						
• Security guards/contract security provider						
Staff licensed (BC), trained (BST, AST)						
• Current guard post orders						

## SECTION C. NOTES/COMMENTS


## **APPENDIX E**

### *SAMPLE UTILITY TRANSFER AGREEMENT*



## UTILITY TRANSFER AGREEMENT

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_, 2018

BETWEEN:

**XXXX UTILITY COMPANY LTD.**

c/o

[the "**Owner**"]

OF THE FIRST PART

AND:

**COWICHAN VALLEY REGIONAL DISTRICT**

175 Ingram Street, Duncan. B.C. V9L 1N8

[the "**Regional District**"]

OF THE SECOND PART

**WHEREAS:**

- A. The Owner owns and operate a water utility (the "**Water Utility**") that distributes and supplies water to all and singular those parcels or tracts of land and premises in the XXXX subdivision area (Electoral Area – ) situate in the Cowichan Valley Regional District in the Province of British Columbia, more particularly known and described as:

Legal Description

(the "**Lands**");

- B. The Regional District may, by bylaw, and pursuant to subsection 796 of the *Local Government Act*, establish and operate any service that the Board considers necessary or desirable for all or part of the Regional District;
- C. The Regional District has the power under Section 176(1)(d) of the *Local Government Act* to acquire, hold, manage and dispose of land, improvements, personal property or other property and any interest or right in or with respect to that property;
- D. The Owner has agreed to allow the Regional District to take over the Water Utility and the Regional District desires to do so on the terms and conditions hereinafter appearing;
- E. The Owner has agreed to transfer its rights in one or more Statutory Rights of Way to the Regional District for the effective operation of the Water Utility on the terms and conditions of the Agreements attached hereto and forming part of this Agreement as Schedule "A".

**NOW THIS AGREEMENT WITNESSES** that in consideration of the covenants hereinafter provided, the parties covenant and agree each with the other as follows:

## **INTERPRETATION**

In this Agreement,

**“Utility Lands”** (no utility lands - all works on right of way and crown land.)

**"Water Utility"** includes all of the water system Works as more particularly described in Schedule "B" to this Agreement

**"Works"** means a system of operative waterworks and all appurtenant pipes, pumps, fittings, valves, meters, wells, treatment works and storage reservoirs installed and constructed by The Owner and employed by or in connection with the Water Utility, and more particularly described in Schedule "B" to this Agreement.

## **PURCHASE PRICE**

The purchase price for the Water Utility shall be the sum of Ten Dollars (\$10.00), payable by the Regional District to The Owner on the Completion Date as hereinafter defined.

## **COMPLETION DATE**

The Completion Date shall be on or before ("The Completion Date").

## **TRANSFER OF INTEREST**

As of the Completion Date, the Owner hereby sells, assigns and transfers to the Regional District all of its right, title and interest in the Water Utility, including:

The “Utility Lands”;

the Works;

the Water Utility; and

Reserve Funds in the amount of approximately \$\_\_\_\_\_ from The Owner's Replacement Trust Reserve Fund and Deferred Capacity Trust Fund; and

(d) The Owner agrees to enter into, prior to the Completion Date, a Contract of Sale with respect to the Works and Utility Lands in the form attached hereto as Schedule "C" and to execute and deliver to the Regional District the Statutory Right of Way agreements in the form attached hereto as Schedule "A" (the **"Statutory Rights of Way"**); and

(e) the Regional District shall be responsible for the payment of any costs incurred with respect to the transfer of these assets.

The Owner further agrees that, on or before the Completion Date, it shall make arrangements for release of the Reserve Funds as referred to in section 4.1(c) to the Regional District.

The Owner further agrees that it is a condition precedent to the obligations of the Regional District under this Agreement that the Vancouver Island Health Authority Permit to Operate a



Drinking Water System be transferred to the Regional District, which condition may be waived by the Regional District in its sole discretion.

The parties acknowledge and agree that the Regional District is purchasing the Water Utility and its Works on an "as is where is" basis and the Owner makes no warranties or representations with respect to the fitness or condition of the assets being transferred pursuant to this Agreement.

## **REPRESENTATIONS AND WARRANTIES**

The Owner represents and warrants to the Regional District as follows, with the intent that the Regional District shall rely on the representations and warranties in entering into this Agreement and in concluding the purchase and sale contemplated by this Agreement:

The Owner has the power and capacity to own and dispose of the Works, and to transfer the Statutory Rights of Way and to carry on the Water Utility now being conducted by it and to enter into this Agreement and carry out its terms to the full extent;

The execution and delivery of this Agreement and the completion of the transaction contemplated by this Agreement has been duly and validly authorized by all necessary corporate action on the part of The Owner, and this Agreement constitutes a legal, valid and binding obligation of The Owner enforceable against The Owner in accordance with its terms;

Neither the execution and delivery of this Agreement, nor the completion of the purchase and sale contemplated by this Agreement will give any person the right to remove the Works, or any part thereof;

The Owner owns and possesses and has a good marketable title to the Works free and clear of all mortgages, liens, charges, pledges, security interests, encumbrances or other claims;

The Owner has no indebtedness to any person, firm or corporation which might by operation of law or otherwise now or hereafter constitute a lien, charge or encumbrance upon any of the Works;

There is no litigation or administrative or governmental proceeding or inquiry pending, or to the knowledge of The Owner, threatened against or relating to the Water Utility, the Works or any part thereof, nor does The Owner know of or have reasonable grounds that there is any basis for such action, proceeding or inquiry;

All governmental licenses, permits and certificates required for the use to which the Works have been put have been obtained and are in good standing and such uses are not in breach of any statute, bylaw, regulation, covenant, restriction, plan or permit.

## **INDEMNITY**

The Owner covenants to save harmless and indemnify the Regional District from and against:

any indebtedness or liability arising before the Completion Date to any person, firm or corporation which might by operation of law or otherwise now or hereafter constitute a lien, charge, mortgage, security interest or encumbrance upon any of the Works, save and except any such indebtedness or liability created or caused by the Regional District; and

any and all actions, suits, proceedings, demands, assessments, judgments, costs and legal and other expenses arising out of or from its Ownership or operation of the Water Utility before the Completion Date.

### **SURVIVAL OF WARRANTIES**

All representations, warranties, covenants and agreements made by The Owner in this Agreement or under this Agreement shall, unless otherwise expressly stated, survive closing and any investigation at any time made by or on behalf of the Regional District shall continue in full force and effect for the benefit of the Regional District.

### **FURTHER ASSURANCES**

The parties shall execute such further and other documents and do such further and other things as may be necessary to carry out and give effect to the intent of this Agreement.

### **TERMINOLOGY**

Wherever the singular or the masculine are used in this Agreement, they shall be construed as meaning the plural or the feminine or body corporate or politic where the context or the parties require.

### **BINDING AGREEMENT**

This Agreement shall enure to the benefit of and be binding upon the parties hereto, their respective successors and assigns.

### **HEADINGS**

The headings in this Agreement are inserted for convenience and reference only and in no way define, limit or enlarge the scope or meaning of this Agreement or any provision of it.

**IN WITNESS WHEREOF** the parties hereto have set their hands and seals as of the day and year first above written.

**Cowichan Valley Regional District** )

by its authorized signatories )

)

\_\_\_\_\_ )

\_\_\_\_\_, Chair )

)

\_\_\_\_\_ )

\_\_\_\_\_, Corporate Secretary )

**XXXX UTILITY COMPANY LTD.** by its )

authorized signatory(ies) )

)

\_\_\_\_\_ )

\_\_\_\_\_  
Name: )

)

\_\_\_\_\_ )

\_\_\_\_\_  
Name: )

## **SCHEDULE "A"**

### **STATUTORY RIGHTS OF WAY**

## **SCHEDULE "B"**

### **The Works**

#### **WATER SYSTEM**

Wells

Pump houses

Concrete Reservoir

Distribution System

## SCHEDULE "C"

### CONTRACT OF SALE OF GOODS (ABSOLUTE)

THIS CONTRACT dated the day of 2010.

IN PURSUANCE OF THE "SALE OF GOODS ACT"

BETWEEN:

XXXX Water Utility

(the "**Seller**")

OF THE FIRST PART

AND:

Cowichan Valley Regional District

(the "**Buyer**")

OF THE SECOND PART

WHEREAS the Seller

- (a) is possessed of the goods and specified goods hereinafter described, and
- (b) has agreed with the Buyer for the absolute sale to it of the same upon the terms and conditions and for the consideration hereinafter set forth.

NOW THIS INDENTURE WITNESSES:

In consideration of and for the sum of Ten Dollars (\$10.00) of lawful money of Canada, and other good and valuable consideration, paid by the Buyer to the Seller at or before the sealing and delivery of this Contract, the receipt whereof the Seller hereby acknowledges, the Seller hereby sells, assigns, transfers and sets over all and singular the goods and specific goods (hereafter collectively called the "said goods"), hereinafter described in Schedule "A" attached hereto and all the right, title, interest, property, claim and demand of the Seller thereto and therein, unto the Buyer, to and for its sole and only use forever.

1. The Seller hereby covenants, promises and agrees to and with the Buyer:
  - (a) that all of the said goods are now in the possession of the Seller as defined in the *Sale of Goods Act*;
  - (b) that the Seller is now rightfully and absolutely possessed of and entitled to the said goods hereby sold and assigned, and to all and every part of them;

- (c) that the Seller now has good right to sell and assign the said goods unto the Buyer in the manner aforesaid and according to the true intent and meaning of this Contract;
- (d) that the goods are free and clear of all charges and encumbrances of every nature and kind whatsoever;
- (e) that the Seller will indemnify and save harmless the Buyer from any and all charges and encumbrances not so set forth and described in Schedule "A" attached hereto;
- (f) that the Buyer shall and may from time to time, and at all times hereafter, peaceably and quietly have, hold, possess and enjoy the said goods hereby sold and assigned, and all and every part of them, to and for its own use and benefit without any manner of hindrance, interruption, molestation, claim or demand whatsoever of, from or by the Seller, or any person whomsoever;
- (g) that the Seller shall and will from time to time, and at all times hereafter, upon every reasonable request of the Buyer, but at the expense of the Buyer, make, do and execute, or cause or procure to be made, done and executed, all such further acts, deeds and assurances for the more effectual assignment and assurance of the said hereby sold and assigned goods unto the Buyer, in the manner aforesaid, and according to the true intent and meaning of this Contract, as shall be reasonably required by the Buyer.

2. The parties to this agreement hereby covenant and agree as follows:

- (a) that the said goods hereby sold are sold on an as is, where is basis and that the Seller makes no representations or warranties to the Buyer of any nature whatsoever regarding the condition of the said goods;
- (b) that the Buyer shall pay any and all taxes, duties, rates and charges that may be imposed by any federal, provincial, state or local government as a result of this sale, and that they Buyer will indemnify and save the Seller harmless from any liability for any such tax, duty, rate or charge.

3. This contract shall be governed by the laws of British Columbia.

IN WITNESS WHEREOF the parties hereto have set their hand and seal as of the day and year first above written.

**Cowichan Valley Regional District** )

by its authorized signatories )

\_\_\_\_\_)  
, Chair )

\_\_\_\_\_)  
, Corporate Secretary )

**XXXX UTILITY COMPANY LTD.** by its )  
authorized signatory(ies) )

\_\_\_\_\_)  
Name: )

\_\_\_\_\_)  
Name: )



## **SCHEDULE “D”**

### **The Works**

#### **WATER SYSTEM**

Wells

Pump house

Reservoir

Distribution System