

SUNSHINE COAST REGIONAL DISTRICT COMMITTEE OF THE WHOLE REVISED AGENDA

Thursday, January 23, 2025, 9:30 a.m.
IN THE BOARDROOM OF THE SUNSHINE COAST
REGIONAL DISTRICT OFFICES AT 1975 FIELD ROAD, SECHELT, B.C.

			Pages
1.	CALL	TO ORDER	
1. 2.	AGEN		
۷.			
_	2.1	Adoption of Agenda	
3.		ENTATIONS AND DELEGATIONS	
4.	REPO	RTS	
	4.1	Hopkins Landing Waterworks District Conversion Options Assistant Manager, Capital Projects General Manager, Infrastructure Services (Voting - All Directors)	3
	4.2	Chaster Well Maintenance and Upgrade - Budget Amendment Manager, Capital Projects (Voting - A, B, D, E, F, Sechelt)	78
	4.3	2024 Preliminary Surpluses and Deficits - INSERT Manager, Financial Services (Voting - All Directors)	81
	4.4	Constituency Expenses and Reimbursement of Directors' Travel and Other Expenses Policies Chief Administrative Officer / Chief Financial Officer (Voting - All Directors)	88
	4.5	Contracts Between \$50,000 and \$100,000 (October to December) Manager, Purchasing and Risk Management (Voting - All Directors)	98
	4.6	Sunshine Coast Regional Accessibility Advisory Committee Meeting Minutes of December 9, 2024 (Voting - All Directors)	100
	4.7	Ports Monitoring Committee Meeting Minutes of December 10, 2024 (Voting - B, D, E, F)	104
5.	COM	MUNICATIONS	
_	NIE\47	BUCINECC	

- 6. **NEW BUSINESS**
- 7. IN CAMERA

8. ADJOURNMENT

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Committee of the Whole – January 23, 2025

AUTHOR: Rebecca Porte, Assistant Manager, Capital Projects

Remko Rosenboom, General Manager, Infrastructure Services

SUBJECT: HOPKINS LANDING WATERWORKS DISTRICT CONVERSION OPTIONS

RECOMMENDATION(S)

1) THAT the report titled Hopkins Landing Waterworks District Conversion Options be received for information;

 AND THAT further direction be provided to pursue Option 1, Option 2 or an alternative action, with respect to next steps in response to the Conditions Assessment and Feasibility Study of the Hopkins Landing Waterworks District.

BACKGROUND

On Feb 24, 2023, the Sunshine Coast Regional District (SCRD) received a letter from Hopkins Landing Waterworks District (HLWD) requesting that the SCRD take over operation and management of HLWD's water system through a process called "conversion", specific to Improvement Districts. In addition to transferring operation and management, conversion would also include the transfer of HLWD land, assets, liabilities, and agreements, through a Cabinet Order by the Province.

On May 11, 2023, a report was presented to the SCRD Board outlining the role of the HLWD and recommending that a grant application be submitted on behalf of the SCRD for a conditions assessment and feasibility study of the HLWD water system. The SCRD Board supported this direction.

Onsite Engineering Services were contracted to complete a conditions assessment of the existing HLWD assets, as well as an exploration of the feasibility of transferring HLWD to the SCRD. The Conditions Assessment (Attachment A) and Feasibility Study (Attachment B) are now complete. This concludes the feasibility work committed to-date by the SCRD.

The purpose of this report is to share the Conditions Assessment and Feasibility Study for informational purposes, and to provide options for further consideration.

DISCUSSION

Hopkins Landing Waterworks District

Hopkins Landing Waterworks District was established in 1968 as a volunteer-run organization that provides drinking water services to approximately 170 properties. The water system

includes two production wells, two storage tanks with total reservoir capacity of 375,000 litres, and a distribution network. The water system is unchlorinated. The mains for the distribution system are primarily asbestos concrete (AC) piping, with replacement segments made up of PVC or steel piping. There are 11 fire hydrants connected to the system. The SCRD owns and operates the surrounding Langdale and Chapman Water Systems which are connected to HLWD with closed valves. This allows the water systems to share drinking water during maintenance or emergency shutdowns. There is no active servicing agreement in place to support such supply to be provided.

Subdivision Servicing Bylaw No. 320

As the HLWD is located within Electoral Area F (West Howe Sound), the *Subdivision Servicing Bylaw No. 320* regulates any upgrades to the system undertaken, regardless of who owns or operates the system.

This bylaw also reserves the right for the SCRD "to acquire any existing or newly constructed community sewer system under this bylaw that has been designed, constructed, and maintained to the standards of the Regional District, for which the relevant plans to ensure a sustainable service delivery have been approved by the SCRD". Currently the HLWD does not meet the SCRD standards, including those set out in Bylaw No. 320.

Conditions Assessment

The Conditions Assessment undertaken by Onsite Engineering Services is included in Attachment A and reviewed the current condition of the Hopkins water system. Through the assessment it was determined that, overall, the system is in good condition with ample supply. The major assets (two wells and two tanks) were found to be performing as required and not needing major upgrades for 5 - 10 years. However, there are several significant issues needing to be addressed within the system. These include watermain replacement, new hydrant requirements, unresolved land tenures in key areas, absence of water treatment, proximity of the north well site to septic, and new water licences for additional volume to meet current standards.

A summary of watermain upgrades required within the system was provided in the assessment. A full replacement of the AC mains to upsized ductile iron piping is needed to meet the requirements of Bylaw No. 320 and to address the aging nature of the system. Four new fire hydrants are also necessary to meet the bylaw requirements.

There are several components of the HLWD infrastructure that are known or suspected to be on private property without a Right of Way (ROW) agreement in place, including some sections of watermains. The most significant unresolved issue is the location of the south well house. Potential solutions have been discussed between HLWD and the landowner, including a lease/rental agreement or purchase of the site, however no solution has been secured. The north well has a separate issue of proximity to septic field.

In 2021, Vancouver Coastal Health Authority (VCH) tested the Hopkins water system. 98 samples were collected. The samples met regulation standard, but VCH strongly recommended that a chlorine residual distribution system would benefit the overall water system. This would provide another barrier to potential contaminants introduced to storage or distribution systems. Such a water treatment system has not yet been implemented. Ongoing delays in the

installation of a water treatment system could result in VCH ordering the HLWD to install such a system.

Both the north and south well have not yet received Water Licences. Groundwater Water Licence applications were submitted in 2017 by HLWD for their historical water use, satisfying the legal requirements to proceed with groundwater use while the application is in process. The application volume is set at 50 million litres per year, or 1.59 l/s. Any increase in water licence volume would require a new application as well as additional testing to determine if increased withdrawals could promote saltwater intrusion or impact the sustainability of the aquifer.

Feasibility Study

Based on the information from the Conditions Assessment and an analysis was completed on various avenues of operationalizing the conversion of the Hopkins system to the SCRD. This Feasibility Study also confirmed high level cost estimates for the infrastructure upgrades required to meet the requirements of Bylaw No. 320, which range from approximately \$7.8 million - \$10 million. The associated report is expected to be finalized shortly and the initial results are included the presentation to the residents on November 28, 2024 which is included in Attachment B.

Options and Analyses

Staff have developed several options for the Board's consideration to respond to HLWD's request to support the conversion of the water system to the SCRD.

OPTION 1 – No Conversion: Emergency water supply only to HLWD users

With this option the HLWD will continue to be responsible for the provision of water for their community. HLWD and SCRD could enter into a long-term emergency water supply servicing agreement.

The benefit would be that the SCRD can continue to focus on water projects currently on its docket. It would also avoid the SCRD to be exposed from additional unknowns/risks associated with undertaking conversion.

It should be noted that SCRD has taken over improvement districts in the past including North and South Pender and Granthams.

Given the substantial workload associated with addressing challenges with the current SCRD water systems, this is one of the options that staff suggest the Board consider advancing. Should the Committee choose to recommend **Option 1** to the Board, a recommendation stating the following could be considered:

THAT staff develop an Emergency Water Supply Agreement with the Hopkins Landing Waterworks District.

OPTION 2 – Proceed with exploring service arrangement for SCRD to take on water supply to Hopkins residents.

There are several options for the SCRD to take on the responsibilities for the water supply to the Hopkins residents, both at a water service area and water system level.

A) Establish New Hopkins Water Service Area, utilizing water from Langdale or Chapman system

Service Area Overview	Hopkins Water Service Area would be established for residents of Hopkins Landing.				
System Overview	Water from the excess capacity at the current water supply sources with the RWS would be used. The water system would utilize pre-established connections to deliver water from the Langdale or Chapman system to Hopkins residents. Use of Langdale vs. Chapman tie-in would be determined based on further cost and logistics exploration. Current wells in Hopkins would be decommissioned.				
Capital Upgrades Required	Baseline upgrades include watermain replacement, fire hydrants, water meters, and pavement restoration. Additional capital upgrades would include decommissioning of current wells.				
Water Supply Considerations	 Chlorination of water as required by VCH. Minimal impact to Chapman or Langdale water system due to current excess capacity from Langdale Well and Soames Well. 				
Benefits	 Water supply from RWS could happen at any time as initial technical system integration is in place. Bypasses the need to resolve water licence, ROW for well, and water treatment issues inherent to the current Hopkins system. 				
Risks	Additional workload for SCRD associated with conversion, capital improvement, and operations of water system.				

B) Establish New Hopkins Water Service Area, utilizing water from the current Hopkins water system

Service Area Overview	Hopkins Water Service Area would be established for residents of Hopkins Landing.			
System Overview	This option would include the continued use of Hopkins own water supply sources. This would require upgrades or full replacement of the current wells, and securing water license for additional volume. Chlorination of the water would be implemented.			
Capital Upgrades Required	Baseline upgrades include watermain replacement, fire hydrants, water meters, and pavement restoration. Additional capital upgrades, would include well upgrade/replacement and implementation of water chlorination.			
Water Supply Considerations	 Chlorination of water as required by VCH. Unsustainable water supply sources 			
Risks	 Requires the additional resolution of water license, well ROW Additional workload for SCRD associated with conversion, capital improvement, and operations of water system. 			

C) Hopkins Joins Regional Water Service Area

Service Area Overview	Hopkins Landing would join the Regional Water Service Area (RWSA).		
System Overview	The water system would utilize pre-established connections to deliver water from the Langdale or Chapman system to Hopkins residents. Use of Langdale vs. Chapman tie-in would be determined based on further cost and logistics exploration. Current wells in Hopkins would be decommissioned.		
Capital Upgrades Required	Baseline upgrades include watermain replacement, fire hydrants, water meters, and pavement restoration. Additional capital upgrades include decommissioning of current wells.		
Water Supply Considerations	 Chlorination of water as required by VCH. Water supply from RWSA could happen at any time as technical system integration is already in place. This option is relatively easy from a service continuity standpoint. Minimal impact to Chapman or Langdale water system due to current excess capacity from Langdale Well and Soames Well. 		
Benefits	No new service area required.		
Risks	Additional workload for SCRD associated with conversion, capital improvement, and operations of water system.		

The financial and legal implications of all three options are still to be assessed including but not limited to:

- the type of service arrangement (e.g. service area establishment, service agreement) and associated benefits and risks
- the legal process required to implement such service agreements
- the financial implication for the Hopkins residents
- the financial implication for the existing service participants of the RWSA for the options with a connection to the Champman Water System or the Langdale Water System.

Should the Committee choose to recommend **Option 2** to the Board, a recommendation stating the following could be considered:

THAT Staff further assesses the implications of entering into a service arrangement for the water supply to the Hopkins residents and report back to the Board in Q3 2025;

AND THAT the budget for the HLWD Conversion Feasibility Study project be increased by \$43,000 from \$40,000 to \$83,000, and the additional amount be funded from [155] Feasibility Studies – Area F taxation, including 0.08 additional FTE for 2025:

AND THAT the draft 2025-2029 Financial Plan be amended accordingly;

AND FURTHER THAT this recommendation be forwarded to the January 23, 2025 Board.

Organization and Intergovernmental Implications

Based on the SCRD's experience, the establishment of any form of service arrangement requires a substantial amount of staff resources, including public engagement with the community, legislative and administrative processes, and financial and technical analyses.

To advance Option 2, an additional 0.08 FTE is required to retain a project manager for this project.

The required capital improvements to the Hopkins water system would further increase the already substantial capital project workload for the Infrastructure Services Department for the upcoming years.

The benefits for the SCRD of a full integration of the HLWD water system with the RWS includes an increased operational redundancy in the water systems for the neighbouring parts of the Chapman and Langdale water systems. Given the confirmed potential of the water aquifer in this area, the SCRD could also explore developing a new production well in this area at some point in the future.

Financial Implications

At the November 9, 2023 Board meeting a budget of \$40,000 was approved for the Hopkins Landing Waterworks District Conversion Feasibility Study. With the work completed to date, this budget has been fully allocated.

The establishment of an emergency water supply agreement for the HLWD users (Option 1), would have no further financial implications for the SCRD other than the payment related to the actual emergency water supply. The cost of developing an emergency water supply agreement could be absorbed within the base budget of the RWSA.

In order to better understand the implications of the different options to advance the establishment of a type of service arrangement listed in Option 2, additional financial, legal and engineering assessments have to be completed. Additional engagement with the community is also suggested before the results of these assessments are presented to the Board. An additional budget of \$43,000 would be required to complete this work. This would result in the budget for the HLWD Conversion Feasibility Study project to be increased by \$43,000 from \$40,000 to \$83,000. This budget increase would need to be funded from [155] Feasibility Studies – Area F taxation.

Timeline for next steps

If the Board were to select Option 1a - Emergency water supply only to HLWD users - staff would inform HLWD immediately of the decision and would initiate negotiations for an Emergency Water Supply Servicing Agreement, with a draft agreement to be presented for the Board's consideration sometime in 2025.

If the Board were to decide to advance exploring a service arrangement, staff would report back to the Board by Q3 2025 with a detailed analyses of the financial, operational and legal implications of these options as well as the results of the community engagement. This would allow the Board to make a decision as to whether to advance any service arrangement prior to the 2026 budget process.

Given the nature and magnitude of the current workload associated with the SCRDs water services and the complexity of the process to be followed, staff expect the full conversion process to take at least two years to complete.

Communications Strategy

A community meeting was coordinated by the SCRD and held on November 28, 2024, at the Gibsons and Area Community Center (GACC). During this meeting, the Onsite Engineering consultant provided a presentation outlining key findings. SCRD staff provided a presentation about the current RWS and service areas (Attachment C). There was an opportunity for questions and answers, as well as an open house format where participants could ask questions informally and share their perspectives. The meeting was well attended with over 50 members of the Hopkins community, and two SCRD directors present.

It was evident that many participants were unaware of the magnitude of infrastructure upgrades required within their water system. It was also evident that some had limited understanding that the current HLWD Board no longer has capacity to manage the water system, and that HLWD had initiated the request for the SCRD to take over the system.

If the Board decides to proceed with the conversion process, the SCRD will launch a Let's Talk Page to share information, including background, presentation materials, and relevant reports with the public.

The Board direction regarding the options included in this report will determine next steps for communications. If the Board chooses not to pursue conversion, HLWD will be notified. If the Board chooses to pursue conversion HLWD will be notified, and the public engagement will follow process requirements.

STRATEGIC PLAN AND RELATED POLICIES

N/A

CONCLUSION

Based on the condition assessment completed and the further feasibility analyzes completed, this report provides a summary of key findings to date as well as a high-level overview of directions the Board may choose to take in regard to the request by HLWD for conversion.

If the SCRD Board does not want to pursue any service arrangement for the water supply to the Hopkins residents, staff recommend Option 1 – Emergency water supply only to HLWD users. If the SCRD Board does want to pursue conversion, staff recommend Option 2. Staff would then report back to the Board by Q3 2025 with a detailed analyses of the financial, operational and legal implications of these options as well as the results of the community engagement. This would allow the Board to make a decision if it wants to advance any service arrangement prior to the 2026 budget process.

Attachments

Attachment A - Hopkins Landing Conditions Assessment

Attachment B – Presentation Onsite Engineering Ltd. November 28, 2024 - Condition Assessment and Feasibility Study

Attachment C - Presentation SCRD November 28, 2024 - Water Systems vs Water Service

Reviewed by:						
Manager		Finance	X- A. Taylor			
GM		Legislative				
CAO	X – T. Perreault	Other				





Hopkins Landing Waterworks District Water System Condition Assessment

Prepared for:

Sunshine Coast Regional District

1975 Field Road Sechelt, BC V7Z 0A8

Submitted by:

Onsite Engineering Ltd.

Contact: Joel McAllister, P.Eng. Onsite Engineering Ltd. imcallister@onsite-eng.ca

604-996-4722

North Vancouver

September 19, 2024

Unit 2 - 252 East 1st North Vancouver, BC **V7L 1B3**

Phone: 778-802-1263 Fax: 1-866-235-6943

OEL File # 723-12

Permit to Practice No.: 1002678

THIRD PARTY DISCLAIMER AND COPYRIGHT

This Report (the "Report") has been prepared by Onsite Engineering Ltd. ("Onsite") for the benefit of the Sunshine Coast Regional District ("Client"). The information, data, recommendations and conclusions contained in the Report:

- are subject to the scope, schedule, and other constraints and limitations and qualifications contained in the Report (the "Limitations")
- represent Onsite's professional judgement in light of the Limitations and industry standards for the preparation of similar reports
- · may be based on information provided to Onsite which has not been independently verified
- have not been updated since the date of issuance of the Report and their accuracy is limited to the time period and circumstances in which they were collected, processed, made or issued
- must be read as a whole and sections thereof should not be read out of such context
- were prepared for the specific purposes described in the Report
- in the case of subsurface, environmental or geotechnical conditions, may be based on limited testing and on the assumption that such conditions are uniform and not variable either geographically or over time

Unless expressly stated to the contrary in the Report, Onsite:

- shall not be responsible for any events or circumstances that may have occurred since the date on which the Report was prepared or for any inaccuracies contained in information that was provided to Onsite
- agrees that the Report represents its professional judgement as described above for the specific purpose described in the Report, but Onsite makes no other representations with respect to the Report or any part thereof
- in the case of subsurface, environmental or geotechnical conditions, is not responsible for variability in such conditions geographically or over time

The Report is to be treated as confidential and may not be used or relied upon by third parties, except:

- as agreed by Onsite and the Client
- as required by law
- for use by governmental reviewing agencies

Any use of this Report is subject to these Qualifications. Any damages arising from improper use of the Report or parts thereof shall be borne by the party making such use.



Table of Contents

1.0	Introduction	1-1
1.1	Document Review	1-1
1.2	Site Review	1-2
1.3	Evaluation Criteria	1-2
2.0	Existing System	2-1
2.1	Overview	2-1
2.2	System Conditions	2-2
2.	2.1 North Well	2-2
2.	2.2 South Well	2-4
2.	2.3 Treatment	2-6
2.	2.4 Storage	2-6
2.3	Distribution System & Repair Records	2-7
3.0	Condition Assessment	3-1
3.1	North Well	3-1
3.2	South Well	3-1
3.3	North Tank	3-2
3.4	South Tank	3-2
4.0	Cost Estimate	4-1
5.0	Land Tenure Issues	5-1
6.0	Recommendations	6-1

Appendices

Appendix A – Condition Assessment Forms

Appendix B – Condition Assessment Photos



1.0 Introduction

Onsite Engineering Ltd. (OEL) has been retained by the Sunshine Coast Regional District (SCRD) to provide engineering consulting services to assess the condition of the Hopkins Landing Waterworks District (HLWD). HLWD is an independent waterwork district servicing 170 properties on the Sunshine Coast. The SCRD owns and operates the surrounding water systems in Langdale and Soames Point, which are connected to HLWD with closed valves. This allows the water systems to share drinking water during maintenance or emergency shutdowns.

In 2023, HLWD requested that the ownership and operation of the HLWD be transferred to the SCRD. The SCRD has procured engineering consulting services to complete a condition assessment of the existing HLWD assets, and to assess the feasibility of transferring ownership of the HLWD to the SCRD.

The scope of this project is to review the existing Hopkin's Landing assets to determine general condition, develop concepts for required upgrades to meet current regulations and standards, and to prepare a Class D cost estimate for the recommended scope of work.

1.1 Document Review

The following documents were provided by the SCRD and reviewed by OEL and were used as reference documents in the preparation of this report:

- Hopkins Landing Shut Off Valves Map, HLWD, April 1993
- Well Inspection Form, MFLNRO, February 2019
- North Well Log & Construction Record, Rural Well Drillers Ltd., June 11, 1968
- Hopkins Landing Well Log South Well, Nor-West Water Well Drilling Ltd., February 27, 1995
- Hopkins Landing Well Logs North Well, HLWD, 2010-2022
- Hopkins Landing Well Logs South Well, HLWD, 2009-2023
- Water Facility Evaluation Report, Vancouver Coastal Health (VCH), March 23, 2022
- Drinking Water System Annual Report, VCH, June 6, 2022
- Hopkins Landing Waterworks District Financial Statements 2021, HLWD, May 27, 2022
- Hopkins Landing Drinking Water Lab Analysis, ALS, November 26, 2019
- Existing Use Groundwater Application Form, HLWD, June 19, 2017
- Water Supply and Distribution System Capacity Analysis, GeoAdvice Engineering Inc., February 29, 2024

In addition, the HLWD Operation Staff provided OEL with hard copies of archived documents from the Hopkins Landing water system, dating back to the 1970's. OEL reviewed these documents and provided them to the SCRD in digital form.



1.2 Site Review

On June 5, 2024, Joel McAllister, P.Eng. and Laura McPhedran, P.Eng. from OEL visited the Sunshine Coast to complete a site review, with Ineke Kalwij, P.Eng., Ph.D. of Kalwij Water Dynamics Inc. SCRD Operations staff were present along with the Hopkins Landing Operations staff. These representatives were Ian Thompson of Hopkins Landing, and Matt O'Rourke, Jeremy Maerkl, and Rui Lin from the SCRD.

1.3 Evaluation Criteria

The approach for completing this condition assessment begins with a site evaluation. This site review was an opportunity to talk to the operators of HLWD, and to hear firsthand of any issues or items of note, which is especially important for small systems like this. A visual evaluation of the major and minor system components was done, and a field assessment was completed in a table format. These tables are included in Appendix A of this report. Photos were also taken; these are included as Appendix B.

Each major asset was broken down into disciplines, and evaluated for which equipment was present and a part of the overall system. Any minor assets within the system were noted and evaluated based on relevant criteria (i.e. if it was operable, if the equipment showed signs of leaking or corrosion, if the asset was obsolete or required repair, or if it appeared in good condition). It is important to note that the condition assessment is assessing the condition of the asset to its original constructed condition. It does not take into account if the original condition met the SCRD standards. Based on this inspection a condition rating was given to each asset and is described in Section 3.0.

The condition was scored based on the following:

Table 1-1: Condition Rating Matrix

Condition Rating	Definition
1	Excellent Condition
2	Good Condition
3	Fair Condition
4	Poor Condition
5	Needs Repair/Replacement

These condition ratings can be interpreted in further detail:

- **1 Excellent Condition**: This asset for all intents and purposes is brand new. There are no signs of damage or wear, there may be a warranty on the item if applicable, and it has a full remaining lifespan typical to the asset.
- **2 Good Condition**: This asset, while not brand new, is in good working order. There is no apparent damage to the asset, and any signs of wear are minor and do not inhibit the function of the asset. As good practice this asset may be re-evaluated in five years but is not expected to require any improvements in the short term.



- **3 Fair Condition**: This asset, while older, is still serviceable. Any signs of age such as rust or damage are all minor and do not impact performance. Equipment that is obsolete may fall under this category if it is still in good working order and has life left, but it may need replacing in order to fit into a more modern, upgraded system. Assets that fall under this category should be inspected every 2-5 years for signs of declining performance, or minor repairs.
- **4 Poor Condition**: This asset is showing signs of age. Equipment with rust, corrosion, minor leaking, declining performance, or damage to the asset that does not yet inhibit performance but may lead to problems in the near future all fall under this rating. This asset is to be evaluated every two years and can expect to need repair or replacement in the next 5-10 years as necessary. It may also be that this asset needs replacement but isn't necessary to the basic function of the service, so if there are budgetary issues, this repair or replacement can be deferred to the next year.
- **5 Needs Repair/Replacement**: This asset requires immediate attention. It has either failed or can no longer operate at an acceptable performance level. This asset is the most critical for repair, if possible, otherwise it needs to be replaced.



2.0 Existing System

2.1 Overview

The HLWD is an improvement district that was established in 1968 to provide drinking water services to approximately 170 properties in Hopkins Landing. The system is comprised of two production wells, North Well and South Well, two storage tanks, North Tank and South Tank, and a distribution network. Figure 2-1 shows the general location of the assets, with the two well houses located along Burns Road, and the two storage tanks located on North Road.

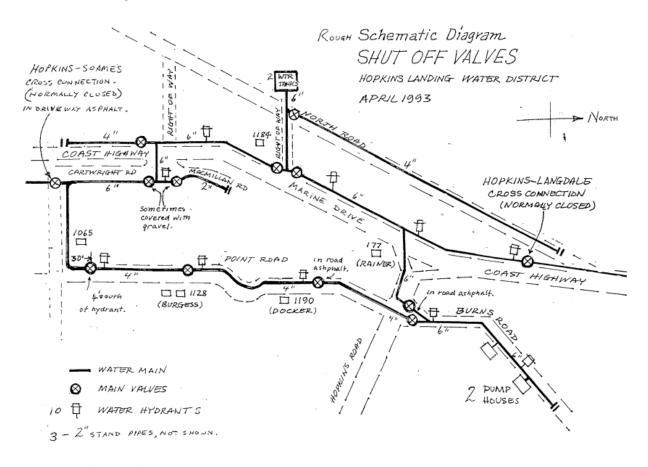


Figure 2-1: Hopkins Landing Water System

Water is supplied from two production wells, the North Well and the South Well. The North well is located at 1370 Burns Road, and the South Well is located at 1298 Burns Road. Water from these wells is pumped directly into the distribution system, which runs along Burns Road, Point Road, Cartwright Road, MacMillan Road, Marine Drive, North Road, and the Coast Highway. There is no designated supply main, instead water is fed from the distribution main to the two above ground steel reservoirs located on North Road. There is no water treatment in the system, and the pumps are currently run manually, although they had run based on reservoir levels until a fallen tree severed the Telus connection that provided communications in spring 2024.



The distribution system consists of 50 mm ϕ , 100 mm ϕ , and 150 mm ϕ mains. Most of the mains are believed to be the original asbestos concrete (AC) piping, with replacement segments consisting of polyvinyl chloride (PVC) piping. The system is comprised of one loop, however there are six dead ends, which may lead to challenges with water quality and flow capacity.

One segment of the distribution system extends north along the Coast Highway, and dead ends at a normally closed valve which serves as a cross connection to the Langdale Water System (LWS). Similarly, another dead end on the south end of the HLWS terminates at a normally-closed valve, serving as a second cross-connection, this time into the Soames Water System (SWS).

Eleven fire hydrants connect to the system, spaced along the distribution network to provide fire protection to the system. It appears approximately 27 valves and 170 water services are the only other appurtenances included in the existing system.

2.2 System Conditions

Notes from the site visit and documents review have all been compiled for each asset, and are detailed further in this section.

2.2.1 North Well

The North Well is located at 1370 Burns Road. It consists of a wood framed and cladded well house with a concrete foundation slab and asphalt shingled roof, housing a concrete-encased well head fitted with a vertical turbine pump and associated valving and piping. Little is known about the design and construction of the North Well House.

2.2.1.1 Well Construction & Maintenance

Based on well records received from the SCRD, North Well was constructed June 11, 1968, by Rural Well Drillers Ltd. They drilled to a depth of 83 feet (25.3 m) and installed an 8" (200 mm ø) casing to a depth of 73 feet (22.2 m), with a 10-foot Johnson SS #60 screen. The initial pumping test produced a yield of 200 gallons per minute, or approximately 12.6 L/s.

Well #1 began to distribute water in 1970, providing approximately 137 m 3 /day for distribution to Hopkins Landing residents. On November 3, 2017, the 8" casing was replaced with a 4" (100 mm \emptyset) casing, and the four-stage pump was rebuilt, with 50 feet of $\frac{3}{4}$ " drive shaft straightened, 9 new couplings and spider bearings installed, new packing placed in the stuffing box, and 2 new motor bearings were installed. The well was chlorinated and flushed for 12 minutes.

Records indicate that the well was rehabilitated in 1984 and rehabilitated a second time in 1999. The first rehabilitation was to address a decline in the performance of the well, and a failure of the pump the summer before. They identified mechanical clogging as the issue and recommended surging the well while pumping with a contractor's pump to redevelop the well. In 1987 the well was redeveloped, with 1 to 2 yards of sand removed from the well during the development session. After this the pump was



reset and operated successfully until around 1999. The second rehabilitation in 1999 was to address the issue of the pump breaking suction, by redeveloping the well a second time. During this redevelopment less than a five gallon pail of sand was removed, and improvements were seen in the well's capacity, though it was still noted to be about 65% of its initial capacity.

2.2.1.2 *Well House*

The well house itself is in fair condition, with the original building standing with no signs of replacement. The well house is a concrete foundation surrounded by mulch, with a grate at the entrance. This is shown in Figure 2-2. It is set back from Burns Road, which is a single lane local road, with a narrow shoulder of mulch. Trees surround the well house, and with a fire hydrant installed outside the well house the site is restricted for space for maintenance vehicles. Approximately one maintenance vehicle would be able to be parked at site at a time, without hindering traffic and the surrounding houses. There is no outdoor lighting on site. There is no fence protecting the well house, but the door is kept locked, providing a measure of site security. The well house is a dropped floor single room consisting of the well head, vertical turbine, electrical controls, a gate valve, a check valve, and associated piping and appurtenances. The roof is comprised of asphalt shingles and is designed to be able to be lifted off for pump maintenance and removal. There is a base board heater installed, and one passive air vent that is sealed off. The room is insulated and does not appear to overheat in the summertime.

2.2.1.3 *Well Head*

The well head is inside the well house, encased in concrete. It is unknown if the surface seal is intact, and no well identification plate could be found. The concrete encasement of the well head is raised, meaning any water pooling is directed away from the well head, though the building itself has no floor drain, leaving the water to pool on the floor. The well head is equipped with a vertical turbine pump.

2.2.1.4 Mechanical

The well discharge piping consists of a 100 mm ø steel discharge pipe with pressure gauge connections and an air release valve, which has a flange fitting connecting to a check valve. The check valve is a Valmatic Swing-Flex check valve, Model No. 504A. The check valve is flange connected to a Clow Gate Valve, also sized 100 mm ø. The gate valve can be opened and closed with no sign of stress or resistance, and the pump was turned on to run during the condition assessment. The check valve appeared to operate as required, with no cavitation noises or vibrations apparent during the pump run. The gate valve is flanged to a welded steel reducer, upsizing the pipe into a 150 mm ø bend, directing the discharge piping below ground. There are no signs of corrosion on any of the piping and equipment, and while the system is dated, it is all in good condition.



2.2.1.5 Electrical

The North Well House is serviced by overhead power lines, providing 3-phase electricity at 480 Volts from a pole-mounted transformer. The electrical service size was not listed. The main disconnect is a switch within the building.

The system contains a Cross the Line starter and is normally controlled by floats in the reservoir. There is no standby generator on site, and no backup power is available. All electrical equipment appears to be original, and while there are no signs of corrosion or obvious code violations, the equipment appears obsolete.

2.2.1.6 Operations

Recently, a storm damaged the overhead Telus cable that fed into the well house, when a tree broke and fell on top of the overhead lines. Telus has been notified but has yet to make repairs. This means that the well house is manually operated, with the Hopkins Landing volunteers turning on the pumps and running them. The system is set on a timer to run for 1.8 hours before turning off automatically.

There is no history of the pump being routinely serviced other than repairs that were made in 1984, 1999, and 2017. It is assumed that the pumps are designed to handle capacity of the Hopkins Landing community, and a record of pump hours is kept by hand. There appears to be no corrosion or moisture present in operating equipment, with alarm lights and light bulbs working.

2.2.2 South Well

The South Well is located at 1298 Burns Road. It consists of a wood framed and cladded well house with a concrete foundation slab and asphalt shingled roof, housing a concrete-encased well head fitted with a vertical turbine pump and associated valving and piping. It should be noted that the 2021 Drinking Water System Annual Report notes that the supply pipe from the South Well to Burns Road main broke, and the existing plastic pipe was replaced. No other information is given about the replacement pipe.

2.2.2.1 Well Construction & Maintenance

Based on well records received from the SCRD, the South Well was constructed February 25, 1995, by Nor-West Water Well Drilling Ltd. They drilled to a depth of 64 feet (19.5 m) and installed an 8" (200 mm ø) casing to a depth of 54 feet 6 inches (16.6 m), with a 10-foot #150 screen. The well was found to have a yield of greater than 100 gallons per minute or approximately 6.3 L/s, with a Goulds pump in operation. In August 2011, the 200 mm ø casing was replaced with a 100 mm ø casing and a 4-stage 15 hp rebuilt SIMFLO pump was installed.

In 2017, the well was estimated to provide approximately 27.6 m³/hour for distribution to Hopkins Landing residents, or 7.7 L/s.



2.2.2.2 Well House

The South Well House is in good condition and is designed similarly to Well House #1, appearing to not require any replacement or repair. It is situated on a concrete foundation pad surrounded by vegetation and trees with a gravel parking pad in the front. Approximately one maintenance vehicle can be parked at the front of the well house. There is no available outdoor lighting on site. The surface grading is sloped to pool water away from the well head. There is no fence protecting the well house, but the door is kept locked, providing a measure of site security.

2.2.2.3 Well Head

The well head appears to be in good condition and is encased in concrete. The encasement is in good condition and is raised above grade to direct water pooling away from the well head. The well head is sealed and equipped with a SIMFLO vertical turbine pump, Model No. SM6C-4 (Serial No. 104988).

2.2.2.4 Mechanical

The well discharge piping consists of a 100 mm ø steel discharge pipe with pressure gauge connections and an air release valve, which has a flange fitting connecting to a check valve. The check valve is a Valmatic Swing-Flex check valve, Model No. 504A. While the check valve wasn't tested, the pump ran smoothly and no comments were given by the operators on its performance. The check valve is flange connected to a Clow Gate Valve, also sized 100 mm ø. The gate valve can be opened and closed with no sign of stress or resistance.

No cavitation noises were made apparent during the pump run. A slight bend is visible in the aboveground piping however it is within tolerance. There are no signs of corrosion on any of the piping and equipment, and while the system is dated, it is all in good condition.

2.2.2.5 Electrical

The South Well House is serviced by overhead power lines, providing 3-phase electricity at 600 volts from a pole-mounted transformer. There is a 40-amp service on site. Electricity is distributed through a metal conduit with a switch to serve as a main disconnect. The system contains a Cross the Line Start and is controlled by floats. There is no standby generator on site, and no backup power is available.

The motor and power cables are not continuous from within well to within the kiosk, the receptacles are not ground fault interrupters (GFI), and the pump is not equipped with an amp meter. However, there seems to be no obvious code violations. The pump is equipped with an hour runtime meter. Like the North Well House, there appears to be no signs of corrosion, just obsolete electrical equipment.

2.2.2.6 Operations

The storm damage to the Telus cables also affects the South Well House, consequently it is manually operated. The South Well House has no records of routine servicing. Pumps are designed to handle capacity of the Hopkins Landing community, and a record of pump hours is kept by hand. There appears



to be no corrosion or moisture present in operating equipment, with alarm lights and light bulbs in working order.

2.2.3 Treatment

The HLWD system is not chlorinated. In 2021, the VCH tested the Hopkin's Landing water system, completing a Bacteriological Assessment of the South Well and distribution system. 98 samples were collected in total, with three water samples taken from the distribution system detecting total coliform. This met the regulation standard, but it was recommended that a chlorine residual distribution system would benefit the overall water system with another barrier to potential contaminants introduced to the storage or distribution system.

2.2.4 Storage

Water is stored in two storage tanks located on North Road. The site is secured by a barb-wired fence and dense blackberry bushes, with adequate lighting throughout the site. There is one service vehicle access point from the road, allowing for one vehicle to park beside both tanks. The vehicle entryway is height restricted.

Each tank has a valve chamber located to the south, where the pipes enter & exit the tanks. These valve chambers are each equipped with a 100 mm ø inlet line fitted with a check valve and a gate valve, and a 150 mm ø outlet line fitted with a check valve and a gate valve. A 100 mm ø equalizing line connects the outlet line of each tank, with a gate valve installed on each tee. These chambers are concrete, with wooden planks fitted to the top to act as a cover. To enter the tank, operates lift up individual wooden slats.

The two tanks provide the HLWD with a reservoir capacity of approximately 375,000 L. The two tanks are connected by an equalization line and isolation valves. Both tanks have a 100 mm ø overflow. The tank water level is monitored and controlled by floats and level switches.

2.2.4.1 North Tank

The north tank, manufactured by Columbian TecTank, was installed by Western Tank and Lining Ltd. in 2009. The north tank is 9.96 m in diameter and 3.05 m in height which includes 0.3 m of freeboard. A 600 mm x 600 mm roof hatch and internal ladder is used to access the tank. The north tank can hold a maximum volume of approximately 185,000 L.

The exterior of the tank is in good condition, with no visible signs of paint flaking or corrosion on the bolts. There is minor moss growth on the exterior, and small debris on the roof of the tank, but overall there is nothing concerning from a visual perspective. The valve chamber is in good repair, however a visual inspection of the chamber itself proves that moisture and organic material are freely entering the chamber, and the wooden cover is showing signs of rot due to the high presence of moisture.



2.2.4.2 South Tank

The south tank, constructed in 1992, is 9.1 m in diameter and 3.0 m in height. There is less known about the south reservoir, other than its capacity of approximately 190,000 L. Records indicate that in the past there were some replacements done to the South Tank, in the amount of \$100,000. The South tank has a similar layout to that of the North Tank, where a 600 mm x 600 mm roof hatch and internal ladder is used to access the tank. A portable stepladder is used to access the roof of the tank, where the float levels can be accessed from a locked kiosk.

The exterior of the tank shows signs of age and corrosion, with moss forming over the steel exterior. All bolts appear in good condition, with no signs of failure. The valve chamber is in good repair, however a visual inspection of the chamber itself proves that moisture and organic material are freely entering the chamber, and the wooden cover is showing signs of rot due to the high presence of moisture. The act of opening the tank is not easily done by one person, and the process of removing each individual plank of wood to access the chamber, then fitting them back may prove to be inefficient and potentially a safety issue if not correctly placed back.

2.3 Distribution System & Repair Records

The HLWD distribution system consists of AC piping varying in size from 50 mm ø to 150 mm ø. Burns Road, Marine Drive, Cartwright Road, the Coast Highway, and the piping connecting the Coast Highway to the water tank and to Cartwright Road are all 150 mm ø AC pipe. North Road, Point Road, and the dead end on the South side of the Coast Highway are all 100 mm ø AC pipe. MacMillan Road has a dead end pipe that is 50 mm ø AC.

According to the HLWD, the current piping is starting to fail and portions of it have had to be replaced throughout the preceding years. According to annual reports from 2014 to 2016, and 2021, the HLWD experienced 13 instances of operational problems. Between 2014 and 2016, five line breaks occurred along Point Road. In all instances the existing asbestos cement pipe had failed and was replaced with polyvinyl chloride (PVC) piping. In December of 2016, the float controls froze so the control box had to be insulated. 2021 proved to be the most problematic for the Hopkins Landing Water District. Five main breaks occurred and the supply pipe from the South Well to Burns Road main ruptured; all were replaced with PVC pipes.

Repair records are not kept in an official log but were rather found on written notes in the HLWD records. No photos of repairs or construction logs were found. Prior to 2014, there is no record of any pipe breaks or failures.



3.0 Condition Assessment

All the assets of Hopkins Landing Waterworks District have been itemized based on major asset, discipline, and minor assets. Using the condition rating explained in Section 1.3, the items have been rated on their condition with a score from 1 to 5. Appurtenances along the distribution network, such as hydrants, valves, and service connections have not been included in this assessment, though recommendations on the distribution pipe network are made in Section 6.

3.1 North Well

Discipline	Minor Asset	Condition	Comment
Structural	Well House	3	While it is in fair condition, the well house will need to be inspected every 2-5 years for signs of deterioration. May require minor touch ups to paint siding, clearing of roof, etc. Showing signs of age, but still serviceable.
Mechanical	Pump	4	Pump was recently rebuilt in 2017. Evaluate condition every 2-5 years. As pump has been in operation since 1968 expect pump replacement in next 10-15 years.
	Check Valve	2	Works smoothly, good condition, re-evaluate in 5 years.
	Gate Valve	2	Works smoothly, good condition, re-evaluate in 5 years.
	Piping	2	No signs of corrosion, re-evaluate condition in 5 years.
Electrical	Service	3	Fair condition.
	Control Panel	3	Obsolete equipment but no code violations. Inspect every 5 years.

3.2 South Well

Discipline	Minor Asset	Condition	Comment
Structural	Well House	2	Good Condition. Routine inspection for debris on roof recommended for adjacent trees.
Mechanical	Pump	3	Pump was installed in 2011. Appears to still be in good condition with minor signs of corrosion and wear around the base. Moisture shown at base. Evaluate condition every 2-5 years.
	Check Valve	2	Works smoothly, good condition, re-evaluate in 5 years.
	Gate Valve	2	Works smoothly, good condition, re-evaluate in 5 years.
	Piping	2	Good Condition with no signs of corrosion, slight bend in pipe but will not affect performance. Re-evaluate condition in 5 years.
Electrical	Service	2	Good condition.
	Control Panel	3	Obsolete equipment but no code violations. Inspect every 5 years.



3.3 North Tank

Discipline	Minor Asset	Condition	Comment
Structural	Concrete Base	2	Good Condition, no signs of cracking, some moss growth but very minor, no stress fractures.
	Steel Tank	2	Good Condition, organic growth on steel walls but exterior seal still intact, no signs of rust or corrosion.
	Bolts	2	Bolts in good condition, no visible signs of rust.
	Hatches	2	Good condition, no signs of stress or leakage, seal is intact.
	Roof	2	Slight build up of organic debris on roof but still in good condition. Locks are intact on roof hatch and no signs of rust or corrosion.
	Kiosk	2	Good Condition, locked with no signs of rust, paint seal still intact.
Mechanical	Float Switch	2	Good condition, no signs of age.
	Valve Chamber	4	Valve chamber lid consists of wooden planks that are showing early signs of rot. Moisture and organic debris are found in valve chamber. Difficult to open and may potentially become a safety hazard if operators stand on chamber lid.
	Inlet Gate Valve	2	Good Condition. Operates as required.
	Inlet Check Valve	2	Good Condition. Operates as required.
	Outlet Gate Valve	2	Good Condition. Operates as required.
	Equalizing Line Valve	2	Good condition.
	Outlet Check Valve	2	Good Condition. Operates as required.
Electrical	Control Panel	2	Good condition.

3.4 South Tank

Discipline	Minor Asset	Condition	Comment
Structural	Concrete Base	2	Good Condition, no signs of cracking, some moss growth but very minor, no stress fractures.
	Steel Tank	2	Good Condition, organic growth on steel walls but exterior seal still intact, no signs of rust or corrosion.
	Bolts	2	Bolts in good condition, no visible signs of rust.
	Hatches	2	Good condition, no signs of stress or leakage, seal is intact.



	Roof	2	Slight build up of organic debris on roof but still in good condition. Locks are intact on roof hatch and no signs of rust or corrosion.
	Kiosk	2	Good Condition, locked with no signs of rust, paint seal still intact.
Mechanical	Valve Chamber	4	Valve chamber lid consists of wooden planks that are showing beginning signs of rot. Moisture and organic debris are found in valve chamber. Separate planks make it difficult to open. May potentially become a safety hazard if operators stand on chamber lid.
	Inlet Gate Valve	2	Good Condition. Operates as required.
	Inlet Check Valve	2	Good Condition. Operates as required.
	Outlet Gate Valve	2	Good Condition. Operates as required.
	Equalizing Line Valve	2	Good condition.
	Outlet Check Valve	2	Good Condition. Operates as required.
Electrical	Control Panel	2	Good condition.



4.0 Cost Estimate

The field condition assessment determined that there were no major assets that were in immediate need of repair or replacement. Upon review of the HLWD records, it became immediately apparent that there was a trend in AC main failures, and that the approximately 2 km of watermain was coming to the end of its lifespan. This is especially important to note that should the SCRD choose to take over the system, there is a possibility of the HLWD being integrated into an adjacent water system that may run at a higher pressure, putting even more strain on the existing pipes resulting in more breakages. The largest cost that the SCRD would need to prepare for would be the replacing of the AC watermain making up the pipe network of the HLWD.

An overall Class D cost estimate for the replacement of the entire AC watermain is shown in the table below:

AC Watermain Replacement Costs	Unit	Quantity	Unit Rate	Amount
Permanent Pavement Restoration	Square Meter	10,640	80	852,000
Watermain DI Imported Backfill	Lineal Metres	2,260	650	1,469,000
Valves	Each	17	2,500	43,000
Fittings	Each	17	1,500	26,000
Replacement of Fire Hydrants	Each	11	12,000	132,000
Water Service Connections	Each	170	2,500	425,000
Watermain Tie-In - Cross Connections	Lump Sum	2	8,000	16,000
			SubTotal	\$2,963,000
	\$889,000			
			GST (5%)	\$148,000
			Total	\$4,000,000

This amounts to a per metre cost of approximately \$1,800, to install new ductile iron (DI) pipe, install all fittings and reconnect existing services, backfill, and pave.

Priority for this work would be based on the history of failures within the water system. Point Road would have the highest priority, as that is the section with the highest number of failures. Phasing of work and its expected costs could be broken down as such:

Phase I – Point Road: \$1,168,000

- Approximately 660 m of AC watermain replacement
- Point Road from Hopkins Road to Cartwright Road

Phase II – Burns Road & North Road: \$2,035,000



- Approximately 1,150 m of watermain replacement
- Entirety of Burns Road and North Road, up to Marine Drive connections

Phase III – Marine Drive & Coast Highway: \$1,504,000

- Approximately 850 m of watermain replacement
- Entirety of Coast Highway and Marine Drive, including cross connection points

By phasing the works in this way the SCRD can manage the costs over a number of years, and complete the work by grouping neighbourhoods to cause less of a strain on traffic and residents.



5.0 Land Tenure Issues

The North Well House is located on 1370 Burns Road. According to a recent title search, there is a Right-of-Way in place for the HLWD, registered December 17, 1970. The owners are familiar with the legal agreement in place and are happy to have the well stay where it is.

The South Well House is located on 1298 Burns Road. A land title search shows that there is no Right-Of-Way in place on this property. The owners of the property have been approached by the HLWD in previous years to discuss the sale of the land the well house sits on but were advised by a third party that selling the land was not a good idea, so they did not go through with the sale. The HLWD is currently in talks with the owners to reconsider selling the land for approximately \$35,000. The owners have shown a preference to setting up a lease arrangement or rental agreement between themselves and the HLWD.

Not having a legal easement on 1298 Burns Road is an important consideration that the SCRD will need to factor into their decision to take over Hopkin's Landing. Having a formal rental agreement in place if land ownership is not an option would be a suitable alternative.



6.0 Recommendations

Overall, the Hopkins Landing Water System is in good condition when considering the major assets (North Well, South Well, North Tank, South Tank). These assets perform as required and still have enough lifespan in them that the SCRD should not be expecting any capital works from them in the next 5-10 years. Since the system is unchlorinated, it would be recommended to complete an internal reservoir inspection, to see the shape of the interior of the tank, and the potential sludge buildup. It is also recommended to implement a structured water testing program. As testing and reporting is crucial to the operation of the water system, these testing methods can be improved upon and properly documented to allow for seamless reporting.

The main items of concern in this system would be the Asbestos Concrete piping. Lack of record keeping does not allow the SCRD to know where past main breaks have occurred, and which lengths of pipe have already been repaired with PVC pipe. It is recommended that if the SCRD were to take over the HLWD, they would implement a watermain replacement program, replacing the AC pipe with either PVC or DI pipe.

As there is a limited record of watermains in the HLWD system, the first step would be to identify and map all AC water mains in the system, including their locations, lengths, and condition. The condition of each AC main would be assessed, considering factors such as age, current performance, and the likelihood of failure. Prioritize Replacements would then be prioritized based on risk to public health and system reliability. As this system was all built in 1968 and is continuously failing via repeated breaks, it has been assumed that the entire system has reached the end of its life expectancy and should be replaced. It may be a good idea to assess if there are recurring issues with water pressure or flow rates. Problems in these areas can signal underlying issues with the mains.

It is also recommended to put into place a method of recording any repairs or maintenance that has been done on the system. Accurate records provide a comprehensive history of all repairs and maintenance activities, helping to identify recurring issues and assess the overall condition of the water system. This historical data is crucial for understanding how different components are aging and predicting potential future problems. It is also important as records help in planning and scheduling preventive maintenance by highlighting past repair patterns and identifying parts that may require more frequent attention. This proactive approach can minimize downtime and extend the lifespan of system components. It can be especially important in the cases of well rehabilitation, where it may be a recurring problem with the pump or the well itself. When issues arise, having a record of past repairs can expedite troubleshooting and problem-solving by providing insights into previous interventions and their outcomes.

OEL proposes the following recommendations to the SCRD, which will be examined further in the feasibility study that will follow.

- 1. Implement repair & maintenance record keeping.
- 2. Implement testing program for water quality.



- 3. Replace AC watermain along Point Road and associated piping offshoots.
- 4. Upgrade tank valve chambers.
- 5. Replace AC watermain along Burns Road and North Road, including well connections and associated piping offshoots.
- 6. Replace AC watermain along Marine Drive and Coastal Highway and associated piping offshoots.

Once this condition assessment has been reviewed by the SCRD, OEL will proceed with the feasibility study of integrating the HLWD into the SCRD's system.

Onsite Engineering Ltd.			
Prepared by:	Reviewed by:		
Laura McPhedran, P.Eng.	Joel McAllister, P.Eng.		





Hopkins Landing Waterworks District Water System Condition Assessment

Appendix A – Condition Assessment Forms

Hopkins Landing	South Well
Notes:	
Generic Station Type:	Well House, pump House, kiosk, etc
General Arrangement:	Well head location, valve arrangement

	Access (ped only?, stairs, private prop?)		Pad & step d	own	
Site Works	Traffic Issues (reserved utility parking?)'	One gravel parking pad in front			
	Safety (Site hazards)		Trees & traffic		
	Well Type (monitoring, production)	Production			
	Well dimensions, incl. depth		See well log		
	Well Screen (material, depth)		See well lo	og	
Mall	Well casing diameter, material		See well log		
Well	Drawdown depth		See well log		
	Pitless Adaptor?		no		
	Well head condition		good		
	Surface Seal (sloped well head?)		good, encased in	concrete	
	Pump Type (Submersible, dry pit, immersible)				
	Pump Model / Serial No.	P1: 5K6227XM3A	P2:	P3:	
Decrease	Year Installed	P1:	P2:	P3:	
Pumps	Impeller #	P1:	P2:	P3:	
	HP Rating / Speed	3510	rpm 15 HP 230/4	460 V Phase 3	
	Production Yield				
	Well Outlet Diameter / Pipe Material				
	Valve Chamber Piping Dia and Material				
	Location of Valves		•		
Mechanical	Check Valve: type, model, mfgr	Volmatic 4" Swing Flex		Model No. 504A	
	Isolation Valve: type, model, mfgr	Gate avrg 4"			
	Ventilation: type, mfgr & capacity	two passive intake			
	Water Treatment (Gas Chlorine, liquid hypochlorite injection)		none		
	Electrical Arrangement (kiosk, building)	Wall panel Well house		el	
	Service Entrance (Location)			se	
	Service Size				
	MCC (mfgr, photo)	photo			
	Pump Control Panel (Mfgr, photo)	photo			
	Starter Type VFD, Soft Start, Cross the line	Cross the line			
	ETM Readings	P1: n/a	P2:	P3:	
Electrical	Level Control System / Mfgr	Floats			
	Controller Type / Mfgr	Floats			
	SCADA: Type / Communication / Mfgr	n/a			
	SCADA I/O Modules	n/a			
	Antenna Details		n/a		
	Standby Generator: Fuel Type / Arrangement		none		
	Standby Generator: Mfgr / Rating (KW)	none			
	Generator Transfer Switch: Type / Mfgr	none			

1		Yes	No	N/A	Comments
8	Is the area around the station or building asphalt? Is the available work area adequate for maintenance vehicles?		N N		Gravel One vehicle, single lane wide
Nork	Is the general public adequately protected during normal operations?	Υ			one vernore, single rathe wide
Site Works	Is the well head protected from vehicle loading? Is the area fenced?	Υ	N		
	Is there outdoor lighting?		N		
	Does the surface grading slope away from the well head?	Υ			
		Yes	No	N/A	Comments
	Is the well interior or exterior?		Interior	1	
	Is the well surface seal adequate? Is the well equipped with a suitable lock?	Y	Υ		unknown, encased in cement Well house is locked
	Is the well equipped with a label?		N		
Well	Diameter of well? Well casing? Is the well screen free of debris?	-	ı		Check well log unknown
	What kind of well pump (pitless adaptor, submersible turbine) is installed?	ν	ertical turbi	ne	
	Is there pump lifting equipment present (rails, hoist, other)? What is the condition of the pump lifting equipment?	-	n/a		Roof detaches, eye hooks on pump
	What is the material of the pump lifting equipment?		n/a		
	Grit buildup in wet well?				
		Yes	No	N/A	Comments
ncy	Does the pump house include an automatic generator for standby power?		N		
Emergency	Does the pump house have provision for standby pumping from an external source? Does the pump house have an emergency bypass pipe?		N N		
ä	Is there a standby pump to replace an existing pump?		N		
	Reliability Score				
		Yes	No	N/A	Comments
<u>la</u>	What material is the well? What condition are the well materials in?				
Structural	What condition is the pump house in?	G	ood Conditi	on	
Stri	Is the well house properly insulated?		Yes		Two passive intake ventilation
	Does the well house overheat in the summer? What is the condition of the material of the roof?	G	ood Conditi	on	moss/branches
tion	Is there a copy of the control drawings onsite?	Yes	No N	N/A	Comments
Instrumentation	Are the controls powered by an UPS?		N		
trum	Is the station equipped with a modem/radio/fibre? Are the pumps controlled with a PLC?		N N		
Ins	Is the station equipped with a magnetic flow meter?		N		
		Yes	No	N/A	Comments
	Service Type?		head powe		Comments
	Station distribution transformer? kVA? Service information? Volts/Amps/Phase		Pole-mounted transformer 600V, 3 phase, 40 amps		600V 25kVa
	Assess equipment corrosion?	6000	no corrosio		
	Age and obsolescence of equipment?	Less obsol		th well but	similar design
	What is the main disconnect? How is the electricity distributed?		Switch Metal conduit		
	Transfer switch type?	none			
<u>-</u>	Kiosk paint? Flaking? Rusting? Is there a copy of the single line drawing onsite?	-	none		
-2	Is the electrical single line drawing current? (time permitting)	-		х	
act of					
Electrical	Is the wiring in the well Class1, Division 2? CABTIRE CABLES Is the nump house equipped with an explosion proof light? Is it functioning?			X	
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk?		N	x x	Junction box, unknown
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash		N		Junction box, unknown
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk?				Junction box, unknown
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the klosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters?	Y	N N N		Junction box, unknown Hour meter
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations?	Y	N N		
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters?	Y	N N N	x	
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVSs between the equipment and the electrical panels?	Yes	N N N	x	
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed?		N N N N N N N N N N N N N N N N N N N	x x	Hourmeter
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed?	ν	N N N	x x	Hour meter Comments
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping?	Y	N N N N N N N N N N N N N N N N N N N	x x	Hourmeter
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a year valve on the influent side of the station?	Y	N N N N N N N N N N N N N N N N N N N	x x	Hour meter Comments
Elect	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the influent side of the station? Is there a check valve on each pump discharge? Does the check valve one each pump discharge? Does the check valve operate properly as the pump starts and shut downs?	Y	N N N N N N N N N N N N N N N N N N N	x x	Hour meter Comments
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a check valve on each pump discharge? Does the check valve on each pump discharge? Does plug or gate valve opper and close freely?	Y	N N N N N N N N N N N N N N N N N N N	x x	Hour meter Comments by check valve
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the influent side of the station? Is there a check valve one each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Doe valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size.	Y	N N N N N N N N N N N N N N N N N N N	x x	Hour meter Comments by check valve
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there YSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure valve on the influent side of the station? Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size.	Y	N N N N N N N N N N N N N N N N N N N	x x N/A ne	Hour meter Comments by check valve
Mechanical	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the influent side of the station? Is there a check valve one each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Doe valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size.	Y	N N N N N N N N N N N N N N N N N N N	x x N/A ne	Hour meter Comments by check valve
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there YS-S between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pate valve on the influent side of the station? Is there a pate valve on each pump discharge? Does the check valve on each pump discharge? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What anterial are the brackets/support rails? What condition is the pump lifting chains in?	Y	N N N N N 1 1 ertical turbi	x N/A ne x x x	Hour meter Comments by check valve
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure valve on the influent side of the station? Is there a check valve on each pump discharge? Does the check valve oneach pump discharge? Does plug or gate valve oppen and dose freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the bracket/support rails? What condition are the bracket/support rails in?	Y	N N N N N N N N N N N N N N N N N N N	x N/A ne x x x x x x x	Hour meter Comments by check valve
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there YSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? Is there a paste valve on the influent side of the station? Is there a paste valve one ach pump discharge? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation?	Y	N N N N 1 ertical turbi	x N/A N/A ne x x x x x	Hour meter Comments by check valve
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the klosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the influent side of the station? Is there a gate valve on the influent side of the station? Is there a gate valve on pand close freely? Does blug or gate valve open and close freely? Does blug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What condition are the brackets/support rails:? What condition is the pump lifting chains in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Is there a significant vibration during pump operation? Is there a significant vibration during pump operation?	Y	N N N N N N N N N N N N N N N N N N N	x N/A ne x x x x x x x	Hour meter Comments by check valve
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there YSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? Is there a paste valve on the influent side of the station? Is there a paste valve one ach pump discharge? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation?	Y	N N N N 1 ertical turbi	x N/A ne x x x x x x x	Hour meter Comments by check valve
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with nuntime meters? Are pumps equipped with amp meters? Are there YSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure valve on the influent side of the station? Is there a pressure gauge connection point on the discharge piping? Does the check valve on each pump discharge? Does plue or gate valve one and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a cavitation noise during pump operation?	Y	N N N N N N N N N N N N N N N N N N N	x N/A ne x x x x x x x x	Comments by check valve unknown slight bend in pipe, within tolerance
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with nuntime meters? Are pumps equipped with amp meters? Are there YSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure valve on the influent side of the station? Is there a pressure gauge connection point on the discharge piping? Does the check valve on each pump discharge? Does plue or gate valve one and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a cavitation noise during pump operation?	Y Y	N N N N N N N N N N N N N N N N N N N	x N/A ne x x x x x x x	Hour meter Comments by check valve unknown
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there YSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure valve on the influent side of the station? Is there a check valve on each pump discharge? Does the check valve on each pump discharge? Does plug or gate valve open and dose freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the pumps easily removed for mintenance purposes? Are the valves easily accessible from the working platform? Is there a cavitation noise during pump operation? Is there a handle the capacity? Pumps are routinely serviced and have been recently serviced? Pumps are noutinely serviced and have been recently serviced?	Yes	N N N N 1 1 ertical turbi	x N/A ne x x x x x x x x	Comments by check valve unknown slight bend in pipe, within tolerance Comments
Mechanical	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with untime meters? Are pumps equipped with amp meters? Are there YSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a passure gauge connection point on the discharge piping? Does the check valve on each pump discharge? Does plug or gate valve on the influent side of the station? Is there a paste valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Is there a sometiment of uring pump operation? Is there a sometiment of uring pump operation? Is there a cavitation noise during pump operation? Is there a sometiment of uring pump operation? Pumps are routinely serviced and have been recently serviced?	Y Y	N N N N 1 1 ertical turbi	x N/A ne x x x x x x x x	Comments by check valve unknown slight bend in pipe, within tolerance Comments
Mechanical	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there YSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure yave on the influent side of the station? Is there a check valve on each pump discharge? Does the check valve on each pump discharge? Does plue of gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a cavitation noise during pump operation? Are there a significant vibration during pump operation? Pumps are routinely serviced and have been recently serviced? Pumps are noutinely serviced and have been recently serviced? Pumps can handle the capacity? Pump hour records kept? Recorded pump hours routinely converted to flows (m3/day)? Pump hour seconds explained.	Yes	N N N N N N N N N N N N N N N N N N N	x N/A ne x x x x x x x x	Comments by check valve unknown slight bend in pipe, within tolerance Comments
	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with map meters? Are pumps equipped with amp meters? Are there YSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a dade valve on the influent side of the station? Is there a pate valve one and pump discharge? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Pumps can handle the capacity? Pump hour records kept? Recorded pump hours routinely converted to flows (m3/day)? Pump hour records kept? Recorded pump hours routinely converted to flows (m3/day)?	Yes	N N N N N N N N N N N N N N N N N N N	x N/A ne x x x x x x x x x x	Hour meter Comments by check valve unknown slight bend in pipe, within tolerance Comments original
Mechanical	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Are pumps equipped with nuntime meters? Are pumps equipped with amp meters? Are pumps equipped with amp meters? Are there YSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure yave on the influent side of the station? Is there a check valve on each pump discharge? Does the check valve on each pump discharge? Does plue or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant wibration during pump operation? Is there a cavitation noise during pump operation? Is there a cavitation noise during pump operation? Pumps are routinely serviced and have been recently serviced? Pumps are routinely serviced and have been recently serviced? Pumps are routinely serviced and have been recently serviced? Pumps are routinely serviced and have been recently serviced? Pump hours between pumps are consistent? Corrosion/moisture in control panel? Auto and manual controls both operational? Amperage draw for pump while running is similar when compared to name plate rating or O&M	Yes	N N N N N N N N N N N N N N N N N N N	x N/A ne x x x x x x x x x x	Comments by check valve unknown slight bend in pipe, within tolerance Comments original Manual, Auto when Teluys line fixed
Mechanical	Is the pump house equipped with an explosion proof light? Is it functioning? Are motor and power cables continuous from within well to within the kiosk? Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with map meters? Are there YSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a check valve on each pump discharge? Does plug or gate valve on the influent side of the station? Is there a check valve on each pump discharge? Does plug or gate valve open and dose freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a civitation noise during pump operation? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Is there a covitation noise during pump operation? Pumps are routinely serviced and have been recently serviced? Pumps can handle the capacity? Pump hour records kept? Recorded pumps are consistent? Corrosion/moisture in control panel?	Yes	N N N N N N N N N N N N N N N N N N N	x N/A ne x x x x x x x x x x	Hour meter Comments by check valve unknown slight bend in pipe, within tolerance Comments original

Hopkins Landing	North Well
Notes:	
Generic Station Type:	Well House, pump House, kiosk, etc
General Arrangement:	Well head location, valve arrangement

	Access (ped only?, stairs, private prop?)		Pad & step	up	
Site Works	Traffic Issues (reserved utility parking?)'	No reserved parking, single lane access road with should			
	Safety (Site hazards)		Trees & one-lar	ne road	
	Well Type (monitoring, production)		Production		
	Well dimensions, incl. depth	See well log			
	Well Screen (material, depth)		See well lo	og	
Well	Well casing diameter, material	See well log			
weii	Drawdown depth	See well log			
	Pitless Adaptor?	No reserved parking, single lane access road with shoulder			
	Well head condition	Outside looks acceptable			
	Surface Seal (sloped well head?)	· ·	Unknown, surrounded by concrete		
	Pump Type (Submersible, dry pit, immersible)		Vertical Turk	oine	
	Pump Model / Serial No.	P1:	P2:	P3:	
Director	Year Installed	P1: 1968	P2:	P3:	
Pumps	Impeller #	P1:	P2:	P3:	
	HP Rating / Speed		15 HP / 3470	rpm	
	Production Yield				
	Well Outlet Diameter / Pipe Material	4" steel			
	Valve Chamber Piping Dia and Material	4" to 6" reducer after	4" to 6" reducer after gate valve steel		
	Location of Valves	check valve & gate valve in house			
Mechanical	Check Valve: type, model, mfgr	Volmatic Swing Flex	Volmatic Swing Flex 504A 4" 200psi		
	Isolation Valve: type, model, mfgr	Clow 4" Gate Valve	Clow 4" Gate Valve		
	Ventilation: type, mfgr & capacity	None. Air intake blocked off			
	Water Treatment (Gas Chlorine, liquid hypochlorite injection)		No treatme	ent	
	Electrical Arrangement (kiosk, building)	In well house on control panel wall, mo		nel wall, mounted	
	Service Entrance (Location)	Well house			
	Service Size	200A			
	MCC (mfgr, photo)	Photo			
	Pump Control Panel (Mfgr, photo)				
	Starter Type VFD, Soft Start, Cross the line	Cross the line			
	ETM Readings	P1: n/a	P2:	P3:	
Electrical	Level Control System / Mfgr	Floats			
	Controller Type / Mfgr		Floats		
	SCADA: Type / Communication / Mfgr	n/a			
	SCADA I/O Modules	n/a			
	Antenna Details	n/a			
	Standby Generator: Fuel Type / Arrangement		None		
	Standby Generator: Mfgr / Rating (KW)	None			
	Generator Transfer Switch: Type / Mfgr	None		·	

		Yes	No	N/A	Comments
	Is the area around the station or building asphalt?		N		Mulch ground, asphalt road
Site Works	Is the available work area adequate for maintenance vehicles? Is the general public adequately protected during normal operations?	Y	N		tight road, lots of trees, one shoulder, one vehicle
e X	Is the well head protected from vehicle loading?	Y			
Sit	Is the area fenced?		N		
	Is there outdoor lighting?	v	N		
<u> </u>	Does the surface grading slope away from the well head?	Y			
		Yes	No	N/A	Comments
	Is the well interior or exterior?		Interior		
	Is the well surface seal adequate?				Unknown - check well log
	Is the well equipped with a suitable lock? Is the well equipped with a label?	Y	N		
Well	Diameter of well? Well casing?		6"		
>	Is the well screen free of debris?				Can't check
	What kind of well pump (pitless adaptor, submersible turbine) is installed? Is there pump lifting equipment present (rails, hoist, other)?	V	ertical Turb	ine I	480V Roof detaches, pump has eyes
	What is the condition of the pump lifting equipment?			x	Root detaches, pump has eyes
	What is the material of the pump lifting equipment?			х	
	Grit buildup in wet well?			x	
	T	Yes	No	N/A	Comments
∂	Does the pump house include an automatic generator for standby power?	163	N	IV/A	connents
Emergency	Does the pump house have provision for standby pumping from an external source?		N		
mer	Does the pump house have an emergency bypass pipe?		N		
ш	Is there a standby pump to replace an existing pump? Reliability Score		N		
	nenability score	1			
		Yes	No	N/A	Comments
-	What material is the well?				
Structural	What condition are the well materials in? What condition is the pump house in?	D-	ted hut doc	ent	
itruc	Is the well house properly insulated?		Dated but decent Plywood with insulation		No ventilation
01	Does the well house overheat in the summer?		No, shaded		
<u> </u>	What is the condition of the material of the roof?		Fair		Asphalt shingles
-	T	Yes	No	N/A	Comments
Instrumentation	Is there a copy of the control drawings onsite?	165	N	N/A	Comments
enta	Are the controls powered by an UPS?		N		
E E	Is the station equipped with a modem/radio/fibre?		N		
Insti	Are the pumps controlled with a PLC? Is the station equipped with a magnetic flow meter?		N N		
	is the station equipped with a magnetic now meter:	1		l	
	<u> </u>	Yes	No	N/A	Comments
	Service Type?		Overhead		4001
	Station distribution transformer? kVA? Service information? Volts/Amps/Phase	Pole mounted 480V 3-phase			480V 200 amp service
	Assess equipment corrosion?		none		200 dinp service
	Age and obsolescence of equipment?	All original			Pump has been rebuilt
	What is the main disconnect?	Switch in building Metallic conduit			
	How is the electricity distributed? Transfer switch type?	IV	letallic cond	uit	
	Kiosk paint? Flaking? Rusting?		n/a		
rical	Is there a copy of the single line drawing onsite?		N		
Electrical	Is the electrical single line drawing current? (time permitting) Is the wiring in the well Class1, Division 2? CABTIRE CABLES			x x	
ш	Is the pump house equipped with an explosion proof light? Is it functioning?			×	
	Are motor and power cables continuous from within well to within the kiosk?	Υ			Not sure, junction box, as far as we know
	Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI?		N		120 & 240 V
	Any obvious code violations?		N N		Obsolete but not a violation
	Are pumps equipped with runtime meters?	Υ			Hour meter
	Are pumps equipped with amp meters?		N		
	Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence			x	
	Efficiency / Obsolescence				
		Yes	No	N/A	Comments
	How many pumps are installed?		1		
	What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping?	v	ertical turbi	ne	Huge
	What is the condition of the piping?		Good		Tinge
	to the control of the			х	Gate valve on discharge
Ī	Is there a gate valve on the influent side of the station?			_ ^	
	Is there a check valve on each pump discharge?	Υ			
	is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs?	Y			
cal	Is there a check valve on each pump discharge?			^	
hanical	is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size.		N		No indicator on check valve or gate valve. Opened wel
Vechanical	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed?			x	No indicator on check valve or gate valve. Opened wel
Mechanical	is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size.		N n/a n/a		No indicator on check valve or gate valve. Opened well
Mechanical	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in?		n/a		
Mechanical	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes?		n/a n/a		No indicator on check valve or gate valve. Opened well Pull nut off
Mechanical	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform?		n/a n/a n/a		
Mechanical	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes?		n/a n/a n/a		
Mechanical	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant wibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard?		n/a n/a n/a N		
Mechanical	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation?		n/a n/a n/a N		
Mechanical	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant wibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard?	Y	n/a n/a n/a N N	x	Pull nut off
Mechanical	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? What issues are there with the piping if any?		n/a n/a n/a N		
Mechanical	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and dose freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Is there a significant vibration during pump operation? Are there backup pumps available in the Worksyard? What issues are there with the piping if any? Pumps are routinely serviced and have been recently serviced? Pumps are routinely serviced and have been recently serviced? Pumps can handle the capacity?	Y	n/a n/a n/a n/a N no no issues	x	Pull nut off Comments
	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? What issues are there with the piping if any? Pumps are routinely serviced and have been recently serviced? Pumps can handle the capacity? Pump hour records kept?	Y	n/a n/a n/a n/a N no no issues	x	Pull nut off Comments
	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? What issues are there with the piping if any? Pumps can handle the capacity? Pump scan handle the capacity? Pump hour records kept? Recorded pump hours routinely converted to flows (m3/day)?	Y	n/a n/a n/a n/a N no no issues	x	Pull nut off Comments
	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? What issues are there with the piping if any? Pumps are routinely serviced and have been recently serviced? Pumps can handle the capacity? Pump hour records kept?	Y	n/a n/a n/a n/a N no no issues	x	Pull nut off Comments
Operational	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and dose freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Is there a significant vibration during pump operation? Are there backup pumps available in the Worksyard? What issues are there with the piping if any? Pumps can handle the capacity? Pumps can handle the capacity? Pump hour records kept? Recorded pump hour routinely converted to flows (m3/day)? Pump hours between pumps are consistent? Corrosion/moisture in control panel?	Y	n/a n/a n/a n/a N no no issues	x	Pull nut off Comments
	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a cavitation noise during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? What issues are there with the piping if any? Pumps can handle the capacity? Pump hour records kept? Recorded pump hour routinely converted to flows (m3/day)? Pump hour between pumps are consistent? Corrosion/moisture in control panel? Auto and manual controls both operational? Amperage draw for pump while running is similar when compared to name plate rating or O&M	Y	n/a n/a n/a n/a N N no no issues No N	x	Comments Rewound once Manual operation
	Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and dose freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible from the working platform? Is there a significant vibration during pump operation? Is there a significant vibration during pump operation? Are there backup pumps available in the Worksyard? What issues are there with the piping if any? Pumps can handle the capacity? Pumps can handle the capacity? Pump hour records kept? Recorded pump hour routinely converted to flows (m3/day)? Pump hours between pumps are consistent? Corrosion/moisture in control panel?	Y	n/a n/a n/a n/a N N no no issues No N	x	Pull nut off Comments Rewound once

Hopkins Landing	
Notes:	
Generic Station Type:	Reservoir Type (fibreglass, concrete, steel)
General Arrangement:	Valve locations (kiosk, numn house, valve chamber)

 12	 1	
		resevoir

		Epoxy-linea coatea s	teerresevon		
	Access (ped only?, stairs, private prop?)		Walk up	1	
Site Works	Traffic Issues (reserved utility parking?)'	Reserved gated parking, overhead restriction of truck gate Blackberry bushes on peripheral		d restriction of truck gate	
	Safety (Site hazards)			n peripheral	
	Reservoir Type	Bolted steel		el	
Reservoir	Rservoir dimensions, incl. TWL and Pressure Zone				
Reservoir	Reservoir Material (Steel, Precast, Struct Concrete)				
	Reservoir corrosion protection (if any)				
	Pump Type (Submersible, dry pit, immersible)				
	Pump Model / Serial No.	P1:	P2:	P3:	
Dumana	Year Installed	P1:	P2:	P3:	
Pumps	Impeller #	P1:	P2:	P3:	
	HP Rating / Speed				
	Stop level / 1st start / 2nd (high) start from bottom of well (m)				
	Inlet Diameter / Pipe Material	4" welded steel			
	Outlet Diameter / Pipe Material	6" welded stell			
	Valve Chamber Piping Dia and Material	4" welded steel			
Machanical	Location of Valves	GV & CV on inlet & outlet			
Mechanical	Check Valve: type, model, mfgr	Volmatic Swing Flex			
	Isolation Valve: type, model, mfgr	Clow gate valve			
	Ventilation: type, mfgr & capacity	none			
	Mixing System: Type, model		none		_
	Electrical Arrangement (kiosk, building)	Panel float	t kiosk, electrical kid	osk between resevoirs	
	Service Entrance (Location)		On top of resevoir	, in sea can	
	Service Size		single phase 120/	240 V boa	
	MCC (mfgr, photo)				
	Pump Control Panel (Mfgr, photo)				
	Starter Type VFD, Soft Start, Cross the line				
	ETM Readings	P1:	P2:	P3:	
Electrical	Level Control System / Mfgr	Float			
	Controller Type / Mfgr	Float			
	SCADA: Type / Communication / Mfgr	none			
	SCADA I/O Modules		none		
	Antenna Details	none			
	Standby Generator: Fuel Type / Arrangement		no		
	Standby Generator: Mfgr / Rating (KW)		no		
	Generator Transfer Switch: Type / Mfgr	no			

And passed and control in success of public against a control of the control of t	Vorks					
The causable work and analysis of contractioner which in 2 The causable work and analysis of contracting contral properties to 2 The causable work of contracting contral properties to 2 The analysis of principal in contracting contral properties to 2 The analysis of principal in contracting contractin	Vorks		Yes		N/A	
Subject and building growth and starting among any exercising and support of the property of t	Nork		v	N		
Secretary special products and the common of the program of of the progra						venicie gate, restricted overnead clearance
Exercise particular spatial particular services and spatial particular services. See See See See See See See See See Se	e					blackberry bushes and fence with barb wire
Process the grading direct carbon and the reserver?	Sit					
Received Capacity Exercise Value Exe						Two switch operated flood lights behind resevoirs
Reservor Offices Line to reservor paggreed in the a student loss? Line to reservor paggreed in the a student loss? Line to reservor paggreed in the a student loss? Line to reservor paggreed in the a student loss? Line to reservor paggreed in the a student loss? Line to reservor paggreed in the a student loss? Line to reservor paggreed in the a student loss? Line to reservoir paggreed in the a student loss? Line to reservoir paggreed in the a student loss of the student los		Does site grading direct surface water away from the reservoir?	Y			
The presence of pupils of the presence of the			Yes	No	N/A	Comments
See the reservoir standards in substants (and the substants) (and		Reservoir Capacity				
See exercise squapped with a salesh local (1996) The exercise squapped with a salesh local (1996) The exercise squapped with a salesh local (1996) The exercise squapped with a salesh local exercise squapped with a salesh local exercise squapped with salesh local exercise salesh local ex						Check drawings
The transport expressed with windows Safety 1 and w			.,			I de la decida decida de la decida decida de la decida decida decida de la decida dec
Access hatch In these a carding around the access belond? In the force of white the carding around the access belond? In the force of white the carding around the access belond? In the force of access around the access belond? In the force of the carding around the access belond? In the force of the carding around the access belond to the access belond the access				N		
States force resistance for an exercise potential content of the print and under? The first of all years and states of the print of th			Υ			, , , , , , , , , , , , , , , , , , , ,
There in the control and an activated by the control of the contro				N		
Water personal within reservor? First in First Caylerinn First First First Caylerinn First Fir					х	
Description or elegated an automatic special part of the interest bookset of the make all outset? Control of the part of th	oir		Y			Passive tube screen air vent
process per or implantion control for the first inches broaden of the inner and outset. The process per or implantion control from the control for the contro	seri		?	IN		Confirm
Does the recention garget from a preference screen matelled? John St. Brown & Food Stand? John St. Brown & Food Stands & Food	8			Separate		
Set building in reservoir? She was finded by a reservoir? She was finded by a reservoir? She was finded by a reservoir? We control the reservoir and the set of the reservoir of the reservoir of the reservoir demands? We control the reservoir demands? We control the reservoir demands of the reservoir of the reservoir of the reservoir demands? We control the reservoir include an automatic generator for standby power? We control the reservoir include an automatic generator for standby power? She that the reservoir include an automatic generator for standby power? She the reservoir has generated and standby poming for many standby power? She that the reservoir has generated reservoir or standby power? She that the reservoir has generated reservoir or standby power? She that the reservoir has generated reservoir or standby power? She that the reservoir has generated reservoir or standby power? She that the reservoir has generated reservoir or standby power? She that the reservoir has generated reservoir or standby power? She that the reservoir has generated reservoir and the reservoir? She that the reservoir has generated reservoir and the reservoir? She that the reservoir has generated reservoir and the reservoir or standby power? She that the reservoir has generated reservoir and the rese			Υ			
Its better a floor deard. Its better extractive bees soleties to exemited the major of the control of the cont						
The late reservoir been subject to control or a fine a marked overflow path? Will contribute cause major controlled dimarge? Obes the reservoir include an automatic generator for standby gower? Obes the reservoir include an automatic generator for standby gower? Obes the reservoir include an automatic generator for standby gower? Obes the reservoir here by an obe verification of the standby gower of			v			Couldn't see
Will coeffour cause major economical damages?			-			4" PVC overflow to ditch
Will workflow cause major one developmental damages? Will workflow cause major south after damages? Ones the reservoir include an automatic generator for standby power? Sees the reservoir include an automatic generator for standby power? Sees the reservoir include an automatic generator for standby power? Sees the reservoir include an automatic generator for standby power? Sees the reservoir include an automatic generator for standby power? In the standby group be replace an existing pomp? Seatilishing your power profess an existing pomp? Seatilishing your power profess an existing pomp? Will a three a standby group be replaced an existing pomp? What is the condition of the anterior of the reservoir individual in the condition of the activated and the access to state and the a				N		T T T C OTC HOW TO WILLIAM
The state of the control of the cont		Will overflow cause major environmental damages?		N		
Does the reservoir include an automatic generator for standby proved? Does the reservoir have provision for standby proved? Does the reservoir have an emergency overflow pipe? The standby provides an emergency overflow pipe? What is the reservoir? What material is the reservoir? What is the material of the reservoir standby provides an embrands is? What is the material of the reservoir standber? What is the material of the reservoir hatcher? If the standby provides an embrands is? What is the material of the reservoir hatcher? If the standby provides an embrands is? What is the material of the reservoir hatcher? If the standby provides an embrands is? The standby provides an embrands is? If the standby provides an embrands is? If the standby provides an embrands is? The standby provides an embrand is? The standby provides an embrands is? The standby provides an embrands is? The standby provides an embrand is an embrand is? The standby provides an embrands is? The standby provides an embrands is? The standby provides an embrands is? The standby provides an embrand is an embrand			oxdot	N		
Does the reservoir include an automatic generator for standby proved? Does the reservoir have provision for standby proved? Does the reservoir have an emergency overflow pipe? The standby provides an emergency overflow pipe? What is the reservoir? What material is the reservoir? What is the material of the reservoir standby provides an embrands is? What is the material of the reservoir standber? What is the material of the reservoir hatcher? If the standby provides an embrands is? What is the material of the reservoir hatcher? If the standby provides an embrands is? What is the material of the reservoir hatcher? If the standby provides an embrands is? The standby provides an embrands is? If the standby provides an embrands is? If the standby provides an embrands is? The standby provides an embrand is? The standby provides an embrands is? The standby provides an embrands is? The standby provides an embrand is an embrand is? The standby provides an embrands is? The standby provides an embrands is? The standby provides an embrands is? The standby provides an embrand is an embrand			- 34		21/2	
Dose: the reservoir have provision for standing purposing from an external source? Dose: the reservoir have high and too level floor block? Dose: the reservoir have high and too level floor block? What is the control of the control of the control purposition of the control of the control of the control purposition of the control of		Does the reservoir include an automatic generator for standby power?	Yes		N/A	Comments
Does the reservoir have an emergency overflow pap? Does the reservoir have high and to level four balls? Yes by N. x. Prof. 150 M/A X.	>		 			
What material is the reservoir? What material is the reservoir materials in? What material is the reservoir? What conditions are the reservoir materials in? What is the condition of the servoir materials in? What is the material of the reservoir hatches? What is the material of the reservoir hatches? What is the material of the reservoir hatches? If are servoir condition of the secret hatches? What is the material of the reservoir hatches? If are servoir condition of the secret hatches? If are servoir condition of the secret hatches? If are servoir condition of the material of the reservoir hatches? If are servoir condition of the material of the reservoir hatches? If are servoir condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the material condition of the material of the reservoir hatches? If are the condition of the material of the reservoir hatches? If are the material condition of the material of the reservoir hatches? If are the material condition of the material of the reservoir hatches? If the waterial of the material of the reservoir? If the material of the material of the reservoir? If the material of the material of the reservoir? If the satisfact of the wearved (Easter) the panel of the material of the panel of t	genc		Y			
What material is the reservoir? What material is the reservoir materials in? What material is the reservoir? What material is the reservoir? What is the material of the reservoir materials in? What is the material of the reservoir hatches? What is the material of the reservoir hatches? What is the material of the reservoir hatches? If it is the material of the reservoir hatches? What is the material of the reservoir hatches? If it is the material of the reservoir hatches? If it is the material of the reservoir hatches? If it is the material of the reservoir hatches? If it is the material of the reservoir hatches? If it is the material of the reservoir hatches? If it is the material of the reservoir hatches? If it is the material of the reservoir hatches? If it is the stand requiped with a PLC and level transmitter with high and low level switches? If it is the stand equipped with a PLC and level transmitter with high and low level switches? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the stand equipped with a magnetic flow meter? If it is the electrical angle ine drawing equipment? If it is the electrical angle ine drawing equipment? If it is the electrical angle ine drawing equipment? If it is the electrical angle ine drawing equipment? If it is the electrical angle ine drawing equipment? If it is the electrical angle ine drawing equipment equipment equipment equipment equipment equipment equipment equipm	ner		Υ			
What condition are the reservoir materials in the reservoir materials in the reservoir materials in? What condition of the access ladder material? What is the condition of the access ladder material? What is the condition of the access ladder material? What is the condition of the material of the reservoir hardner? What is the condition of the material of the reservoir hardner? What is the condition of the material of the reservoir hardner? What is the condition of the material of the reservoir hardner? What is the condition of the material of the reservoir hardner? What is the condition of the material of the reservoir hardner? What is the condition of the material of the reservoir hardner? What is the condition of the material of the reservoir hardner? In the condition of the material of the reservoir hardner? What is the condition of the material of the reservoir hardner? In the condition of the material of the reservoir hardner? In the condition of the material of the reservoir hardner? In the condition of the material of the reservoir hardner? In the condition of the material of the reservoir hardners? In the same process of the condition of the material of the reservoir hardners? In the same process of the material of the reservoir hardners? In the same process of the same proces	.	Is there a standby pump to replace an existing pump?		N	x	
What contend is the reservoir? What is the material of the access laddern 3? What is the material of the access laddern 3? What is the material of the access laddern 3? What is the material of the access laddern 3? What is the material of the access laddern 4? What is the material of the access laddern 4? What is the material of the reservoir hatches? What is the material of the reservoir hatches? What is the material of the reservoir hatches? If the condition of the included of the reservoir hatches? If the condition of the included of the reservoir hatches? If the standard of the access laddern 4? If the condition of the included of the reservoir hatches? If the standard of the access laddern 4? If the condition of the included of the reservoir hatches? If the standard of the access laddern 4? If the condition of the included of the reservoir hatches? If the standard of the access laddern 4? If the condition of the included of the reservoir hatches? If the standard of the access laddern 4? If the condition of the included of the reservoir hatches? If the standard of the access laddern 4? If the condition of the included of the reservoir hatches? If the standard of the access laddern 4? If the condition of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4? If the wine control of the access laddern 4?		Reliability Score				
What naterial is the reservoir? What is the material of the excess ladders? What is the material of the reservoir hatches? What is the material of the reservoir hatches? What is the material of the reservoir hatches? What is the condition of the incidency of the reservoir hatches? What is the condition of the reservoir hatches? What is the condition of the reservoir hatches? What is the material of the reservoir hatches? What is the condition of the reservoir hatches? What is the reservoir hatches? What material are the brakes/happort ails? What conditions hat pump planting chain in? What conditions hat pump planting chain in? What conditions hat pump planting			Voc	No	N/A	Comments
What condition or the receivoir materials in? What is the condition of the access ladders? What is the condition of the material of the receivor's hatches? What is the condition of the material of the receivor's hatches? It is the condition of the material of the receivor's hatches? What is the condition of the material of the receivor's hatches? What is the condition of the material of the receivor's hatches? It is the condition of the material of the receivor's hatches? What is the condition of the material of the receivor's hatches? It is the condition of the material of the receivor's hatches? It is the condition of the material of the receivor's hatches? It is the condition of the material of the receivor's hatches? It is the condition of the material of the receivor's hatches? It is the condition of the material of the receivor's hatches? It is the condition of the material of the receivor's hatches? It is the condition of the material of the receivor's hatches? What is the main disconnect? What is the main disconnect of equipment and the elec		What material is the recenvoir?	res	NO	N/A	
What is the material of the access ladder? What is the material of the responsibility that is the responsibility that is the material of the responsibility that is the	-					
What is the condition of the material of the received value of the received material of the rece	ţ.			n/a		
What is the condition of the material of the reservoir hatches? No.	ţ					
Section Controls powered by an UPS	S					
As the control drawings onsite? As the control spowed by an ISP? As the control spowed by an ISP? As the control spowed by an ISP? As the pumps controlled with a PEL and level transmitter with high and low level switches? As the pumps controlled with a PEL and level transmitter with high and low level switches? Sorvice Type? So		what is the condition of the material of the reservoir natches?	<u> </u>	Tair		
Is there a copy of the control drawing consist? Are the control sowered by an UPS? Is the station equipped with a modern/radio/fibre? Are the purpose controlled with a PEL and level transmitter with high and low level switches? Is the station equipped with a magnetic flow meter? N In the purpose controlled with a PEL and level transmitter with high and low level switches? Service information? Volts/Armps/Phase Service information? Volts/Armps/Phase Assess equipment corrosion. Age and obsolescence of equipment? What is the main disconnect? How is the electricity distributed? Transfer exoly of the single line drawing onsite? Is the electricity distributed? Transfer exoly of the single line drawing onsite? Is the electricity distributed? Transfer exoly of the single line drawing onsite? Is the electricity distributed? Transfer exoly of the single line drawing onsite? Is the electricity distributed? Transfer exoly of the single line drawing onsite? Is the electricity distributed? Transfer conjugate line drawing current? (time permitting) Is the electricity distributed? Are mount and power cables confinious from which wetwelf to within the look? Are mount and power cables confinious from which wetwelf to within the look? Are mount and power cables confinious from which wetwelf to within the look? Are pumps equipped with an explosious proof light? is if functioning? Are pumps equipped with an explosion proof light? is if functioning? Are there EYS between the equipment and the electrical panels? If the many pumps are installed? What type of pump(s) are installed? No (byp.) If the work of the explored proof is the pump starts and shut downs? Does the check valve on the outlet piping side of the reservoir? Is there a piece valve connection point on the discharge piping? Yes the explored on the custed proof is the pump starts and shut downs? Does the check valve on the outlet piping side of the reservoir? Yes the explored on the custed pump discharge? Yes the explored on the outle	=		Yes	No	N/A	Comments
Service Type? Service Type? Service Information? Volts/Amps/Phase Asses sequement corrosion? Asses sequement corrosion. Asses s	tion at	Is there a copy of the control drawings onsite?			x	
Service Type? Service Type? Service Information? Volts/Amps/Phase Asses sequement corrosion? Asses sequement corrosion. Asses s	ent				х	
Service Type? Service Type? Station distribution transformer? WA? Station distribution transformer? WA? Station distribution transformer? WA? Station distribution transformer? WA? Service information? Age and obsolescence of equipment? What is the main disconnect? How is the electricity distributed? Transfer switch type? Kook pain? Flaking? Resting? Is the electricity distributed? Transfer act poyr of the single line drawing current? (time permitting) Is the electricity distributed? Transfer act poyr of the single line drawing onsite? Is the electricity distributed? Transfer act poyr of the single line drawing onsite? Is the electricity distributed? Transfer act poyr of the single line drawing onsite? Is the electricity distributed? Transfer act poyr of the single line drawing onsite? Is the electricity distributed? Transfer act poyr of the single line drawing onsite? Is the electricity distributed? Transfer act poyr of the single line drawing onsite? Is the electricity distributed? Transfer act poyr of the single line drawing onsite? Is the electricity distributed? N	Ę			N		Hard line Telus wire
Service Type? Station distribution transformer? kVA? Service information? Votts/Amps/Phase Assess equipment corrosion?? Age and obsolescence of equipment? What is the main disconnect? How is the electricity distributed? Transfer exoup of the single line drawing onsite? Is the electricity distributed? Transfer accopy of the single line drawing onsite? Is the electricity distributed? Transfer accopy of the single line drawing onsite? Is the electricity distributed? Transfer accopy of the single line drawing onsite? Is the electricity distributed? Transfer accopy of the single line drawing onsite? Is the electricity distributed? Transfer accopy of the single line drawing onsite? Is the electricity distributed? Transfer accopy of the single line drawing onsite? Is the electricity distributed? Transfer accopy of the single line drawing onsite? Is the electricity distributed? Transfer accopy of the single line drawing onsite? Is the electricity distributed? N	nsti			N.	х	
Service Type? Station distribution transformer? WAP? Service information? Volts/Amps/Phase 120/240 breaker panel in sea can 120/240 breaker panel in peac can 120/240 breaker panel input one none Assess equipment corrosion? Age and obsolescence of equipment? What is the main disconnect? How is the electricity distributed? Transfers writch type? Sicols paint? Flaking? Bustling? Is the electricity distributed? Transfers act opry of the single line drawing onsite? Is the electricity distributed? Transfers act opry of the single line drawing onsite? Is the electricity distributed? Transfers act opry of the single line drawing onsite? Is the electricity distributed of the electricity distributed? Transfers act opry of the single line drawing onsite? Is the electricity distributed of the electricity distributed? Transfers act opry of the single line drawing onsite? Is the electricity distributed? Transfers a copy of the single line drawing onsite? Is the electricity distributed? Transfers a copy of the single line drawing onsite? Is the electricity distributed? Transfers a copy of the single line drawing onsite? Is the electricity distributed of the electricity panels? It was a capacity distributed of the electricity and electricity distributed of the electricity and electricity distribut		is the station equipped with a magnetic flow meter?		N		
Sation distribution transforme? WA? Service information? Valk/Ampt/Phase 120/240 breaker panel input Some information of the i			Yes	No	N/A	Comments
Service information? Volts/Amps/Phase 3120/240 breaker panel input Solamp breaker, single phase Assess equipment corroson? Solamp breaker, single phase Assess equipment corroson? Solamp breaker, single phase Assess equipment corroson? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment? Solamp breaker, single phase Age and obsolescence of equipment and the electrical panel? Solamp breaker, single phase Age and obsolescence of equipment and the electrical panels? Solamp breaker, single phase Age and obsolescence of equipment and the electrical panels? Solamp breaker, single phase Age and obsolescence of equipment and the electrical panels? Solamp breaker, single phase Age and obsolescence of equipment and the electrical panels? Solamp breaker, single phase Age and obsolescence of equipment and the electrical panels? Solamp breaker, single phase Age and obsolescence of equipment and the electrical panels? Solamp breaker, single phase Age and obsolescence obsolescence of equipment and the electrical panels? Solamp brea						
Assess equipment corrosion? Age and aboslescence of equipment? What is the main disconnect? Is the vice discription of the piping? Is the electrical single line drawing conste? Is there a copy of the single line drawing conste? Is the electrical single line drawing conste? Is the station equipped with an explosion proof light? Is it functioning? Are motor and power called class. Division 2? Are motor and power called constituous from within weetvel to within the kloss? Is 5000 mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with numine meters? Are pumps equipped with numine meters? Are pumps equipped with any meter? Are there the equipment and the electrical panels? I was a secondary of the equipment and the electrical panels? What type of pump(s) are installed? What type of pump(s) are installed? What type of pump(s) are installed? What is the condition of the piping? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the null piping side of the reservoir? Is there a gate valve conthe outlet piping side of the reservoir? You check valve perate properly as the pump starts and shut downs? Does plug or gate valve conthe outlet piping side of the reservoir? You check valve perate properly as the pump starts and shut downs? Does plug or gate valve conthe outlet piping side of the reservoir? You check valve a control on only on closure? Are the bracket and support rails securely installed? What condition are the pracket/support rails in? What condition are the pracket/support rails in? What condition are the pracket/support rails in? What condition are the pra						60 amp broaker single phase
Age and obsolescence of equipment? What is the main disconnecte? How is the electricity distributed? Transfer switch type? Kook paint? Flaking? Rusting? Is the electrical single line drawing current? (time permitting) Is the electrical single line drawing current? (time permitting) Is the electrical single line drawing current? (time permitting) Is the electrical single line drawing current? (time permitting) Is the station equipped with an explosion proof light? Is it functioning? Are mort and power calles continuous from within wetwell to within the kiosk? Is 500V mixed with lower voltage in same panel? Arc-Flash Are receptaces GFI? Are pumps equipped with number meters? Are pumps equipped with an equipment and the electrical panels? Is there is pressure gauge connection point on the discharge piping? What to per opumps () are installed? What to per opumps () are installed? Is there a pressure gauge connection point on the discharge piping? What to condition of the piping? Is there a aptex valve on the intel piping side of the reservoir? Is there a patex valve on the intel piping side of the reservoir? Is there a aptex valve on the intel piping side of the reservoir? Is there a aptex valve on the intel piping side of the reservoir? Is there a aptex valve on the intel piping side of the reservoir? Is there a aptex valve on the intel piping side of the reservoir? Ye Check value in inlet/outet Does the check valve generate properly as the pump starts and shut downs? Does plug or gate valve contend profting than institution downs and the pump part of t			120/24		anei input	oo amp breaker, single phase
How is the electricity distributed?		Age and obsolescence of equipment?			1	
Transfer switch type? N Sea can		What is the main disconnect?		Switch in pa	nel	
Single Platking? Rusting? Susting Sustin						
Is there a copy of the single line drawing onsite?						con con
Is the electrical single line drawing current? (time permitting) x x	TO.			IN	¥	sea can
Is the station equipped with an explosion proof light? is it functioning? x x	Ť					
Are motor and power cables continuous from within wetwell to within the kiosk? x x	E	Is the wiring in the wetwell Class1, Division 2? CABTIRE CABLES			×	
Is 600V mized with lower voltage in same panel? Arc-Flash Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence Yes No N/A Comments What type of pump(s) are installed?						
Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with any meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence Ves		Are motor and power cables continuous from within wetwell to within the kiosk?				
Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYS between the equipment and the electrical panels? Efficiency / Obsolescence Ves					x x	
Are pumps equipped with runtime meters? Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence Yes No N/A Comments The many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on one outlet piping side of the reservoir? Yes No N/A Comments N/a What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Yes In the condition of the piping side of the reservoir? Yes In the condition of the piping side of the reservoir? Yes In the condition of the piping side of the reservoir? Yes In the condition of the piping side of the reservoir? Yes In the condition of the piping side of the reservoir? Yes In the condition of the piping side of the reservoir? Yes In the condition and yes in the pump starts and shut downs? Does plug or gate valve open and coles freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valves size. No (typ.) What is the condition are the brackets/support rails securely installed? What condition is the pump lifting chains in? Are the bracket and support rails securely installed? Are the pumps easily removed for maintenance purposes? Are the pumps available in the Worksyard? Yes In the easy available on the Worksyard? Xes In the easy available in the Worksyard? Xes In the easy available in the Worksyard? Xes In the read backets young available in the Worksyard? Xes In the read backets would represent on? Xes In the read backets would represent on the surface of the reservoir? Xes In the read backets would represent on the surface of the reservoir? Xes In the read would represent the worksyard? Xes In the read would represent the worksyard					x x x	
Are there EYSs between the equipment and the electrical panels? Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence Yes No N/A Comments N/A Comments N/A N/A Co		Are receptacles GFI?		N	x x x	
Are there EYS between the equipment and the electrical panels? Efficiency / Obsolescence Yes No N/A Comments Na		Are receptacles GFI? Any obvious code violations?		N	x x x	
How many pumps are installed? What type of pump[s] are installed? What type of pump[s] are installed? What type of pump[s] are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Y Is there a gate valve on each pump discharge? Does the check valve on each pump discharge? Does plug or gate valve one and pump discharge? Does plug or gate valve open and dose freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves sails years and the propertion of the pump operation? Y Is there a significant vibration during pump operation? Y Is there a cavalation noise during pump operation? Y Is there a cavalation noise during pump operation? Y Y Is there a cavalation noise during pump operation? Y Y Y Y Y Y Y Y Y Y Y Y Y		Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters?		N	x x x x	
How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a pate valve on the outlet piping side of the reservoir? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on each pump discharge? Obes the check valve on each pump discharge? Does plug or gate valve one and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition are the brackets/support rails in? What condition are the pump lifting claims in? Are the pumple gasily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Y On top of resevoir, or inside Are the valves easily accessible? Y Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? X Are there backup pumps available in the Worksyard? X Does plug or gate valve on the interpling interpling interplining the reservoir? X X What condition are the prackets/support rails in? X Are the pumple gasily removed for maintenance purposes? X On top of resevoir, or inside X Are there backup pumps available in the Worksyard? X X		Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels?		N	x x x x	
How many pumps are installed? What type of pump[s] are installed? What type of pump[s] are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a pate valve on the inlet piping side of the reservoir? Is there a pate valve on each pump discharge? Obes the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What condition are the brackets/support rails in? What condition are the brackets/support rails in? What condition are the pump lifting claims in? Are the pump sasily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Y On top of resevoir, or inside Are the valves easily accessible? Y Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? Y Are there backup pumps available in the Worksyard? X		Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels?		N	x x x x	
What type of pump[s] are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a pate valve on each pump discharge? V Check value in inlet/outlet Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? What condition are the brackets/support rails securely installed? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Is there a significant vibration during pump operation? Is there a cavitation noise during pum		Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels?	Voc		x x x x	Comments
Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Y Check value in inlet/outlet S there a check valve on each pump discharge? Y Check value in inlet/outlet Does plug or gate valve one and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. No (typ.) The rea valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What condition are the brackets/support rails? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the pumps easily removed for maintenance purposes? Are the valves easily accessible? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a significant vibration during pump operation? Is there a significant vibration during pump operation? Are there backup pumps available in the Worksyard? X No the pumps easily removed for maintenance purposes? Is there a significant vibration during pump operation? X X Are there backup pumps available in the Worksyard? X X		Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed?	Yes	No	x x x x	Comments
Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. No (typ.) Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a significant vibration during pump operation? Are there backup pumps available in the Worksyard? Are there backup pumps available in the Worksyard? Are there backup pumps available in the Worksyard? X		Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed?	Yes	No n/a	x x x x	Comments
Is there a gate valve on the outlet piping side of the reservoir? Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Does plug or gate valve open and close freely? Does whe check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Does plug or gate valve open and close freely? Does plug or gate valve open and close freely? No (typ.) Rotating wood slot lid with valve lids Are the bracket and support rails securely installed? X What condition are the brackets/support rails in? What condition are the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Y Is there a significant vibration during pump operation? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? X Check value in inlet/outlet Check value in inlet/outlet Check value in inlet/outlet Debug in inlet/outlet Debug in inlet/outlet Check value in inlet/outlet Debug in inlet/outlet Debug in inlet/outlet No (typ.) Rotating wood slot lid with valve lids X Wat condition are the brackets/support rails? X United by a condition in the pump lifting the security. Are there a significant vibration during pump operation? X Is there a cavitation noise during pump operation? X Are there backup pumps available in the Worksyard? X		Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping?	Yes	No n/a n/a	x x x x	Comments
Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are the backup pumps vaviable in the Worksyard? Are the backup pumps vaviable in the Worksyard? Are the robackup pumps vaviable in the Worksyard? X Lender the valve sealing pumps vaviable in the Worksyard? X X		Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping?	Yes	No n/a n/a	x x x x	Comments
Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Does plug or gate valve open and close freely? No (typ.) Rotating wood slot lid with valve lids For valve size. Is there a valve chamber outside of the reservoir? What material are the brackets and support rails securely installed? What material are the brackets/support rails? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a significant vibration during pump operation? Are the rebackup pumps available in the Worksyard? Are the rebackup pumps available in the Worksyard? X Are there backup pumps available in the Worksyard? X X Are there backup pumps available in the Worksyard? X X X X X X X X X X X X X		Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EFS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What is the condition of the piping? Is there a gressure gauge connection point on the discharge piping? What is the condition of the piping?	Υ	No n/a n/a	x x x x	Comments
Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition are the pump lifting chains in? Are the pump seasily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? Are there backup pumps available in the Worksyard? X		Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the outlet piping side of the reservoir?	Y	No n/a n/a	x x x x	
Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valves size. Is there a valve chamber outside of the reservoir? What condition are the bracket and support rails securely installed? What condition are the brackets/support rails in? What condition is the pump lifting chains in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? Are there backup pumps available in the Worksyard? X		Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a check valve on each pump discharge?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	
What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Y Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? Are there backup pumps available in the Worksyard? X		Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the outlet piping side of the reservoir? Is there a pate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely?	Y Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	
What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Y Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? Are there backup pumps available in the Worksyard? X	le	Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EFS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable	Y Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet
What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Y Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? Are there backup pumps available in the Worksyard? X	anical	Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a check valve on each pump discharge? Does the check valve opera froperly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size.	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.)
What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? X	schanical	Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the unter piping side of the reservoir? Is there a check valve on each pump discharge? Does the check valve on each pump discharge? Does the check valve on each and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.)
What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? X	Mechanical	Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there FSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.)
Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? X	Mechanical	Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EYSs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a check valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.)
Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? X Are there backup pumps available in the Worksyard? X	Mechanical	Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there FSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pare valve on the inlet piping side of the reservoir? Is there a gate valve on the inlet piping side of the reservoir? Is there a pate valve on the inlet piping side of the reservoir? Is there a pate valve on the index piping side of the reservoir? Does be the check valve operate properly as the pump starts and shut downs? Does bug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition is the pump lifting chains in?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.)
Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? x	Mechanical	Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a capte valve on the outlet piping side of the reservoir? Does plue of gate valve operate properly as the pump starts and shut downs? Does plue of gate valve operate properly as the pump starts and shut downs? Does plue of gate valve operate and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What condition are the brackets/support rails? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids
Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? x	Mechanical	Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there FSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a pate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a pate valve on the outlet piping side of the reservoir? Is there a check valve on each pump discharge? Does blue check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Does but check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the bracket/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids
Are there backup pumps available in the Worksyard?	Mechanical	Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a check valve opera not properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? Are the valves easily removed for maintenance purposes? Can the level controls the accessed on the ground level without entering the reservoir?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids
	Mechanical	Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there FSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a pressure gauge connection point on the discharge piping? Does plug or gate valve operate properly as the pump starts and shut downs? Does plug or gate valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Does the check valve open and close freely? Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids
	Mechanical	Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there FSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What is the condition of the piping? is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a a significant vibration during pump operation?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids
	Mechanical	Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there FSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What is the condition of the piping? is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a a significant vibration during pump operation?	Y	No n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids
Yes No N/A Comments	Mechanical	Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the united piping side of the reservoir? Is there a gate valve on the pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition is the pump lifting chains in? Are the pump easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the evalve saily accessible? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Is there a cavitation noise during pump operation?	Y Y Y Y	n/a n/a n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids
Reservoir is routinely cleaned and have been recently cleaned? N 10-12 years ago cleaned installed in 2010 N 10-12 years ago cleaned installed in 2010	Mechanical	Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there FSS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What is the condition of the piping? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on pump discharge? Does plug or gate valve operate properly as the pump starts and shut downs? Does plug or gate valve operate properly as the pump starts and shut downs? Does plug or gate valve operate nod/ose freely? Does the check valve operate nod/ose freely? Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Is there a cavitation noise during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyar? What issues are there with the piping if any?	Y Y Y Y	No n/a n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids On top of resevoir, or inside Comments
Capacity is Suriable for fire flows? Y		Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EFS be tween the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? What tis the condition of the piping? is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? is there a gate valve on the inlet piping side of the reservoir? is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the outlet piping side of the reservoir? Is there a gate valve on each pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails in? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the a significant vibration during pump operation? Is there a calvation noise during pump operation? Are there backup pumps available in the Worksyard? What issues are there with the piping if any?	Y Y Y Y	n/a n/a n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids On top of resevoir, or inside
What is the ADD/MDD of system? 30k/60k G/d		Are receptacles GFI? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there EVS between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the pump discharge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition is the pump lifting chains in? Are the pump easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the a significant vibration during pump operation? Is there a a syntation noise during pump operation? Is there a cavitation noise during pump operation? Is there a resultation noise during pump operation? Are there have easily accessible? Is there a resultation noise during pump operation? Are there was easily accessible? Is there a resultation noise during pump operation? Are there were easily accessible? Reservoir is routinely cleaned and have been recently cleaned? Capacity is suitable for fire flows?	Y Y Y Y	No n/a n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids On top of resevoir, or inside Comments
Are the valves regularly exercised?	Operational	Are receptacles GFI? Any obvious code violations? Are pumps equipped with runtime meters? Are pumps equipped with amp meters? Are there ESs between the equipment and the electrical panels? Efficiency / Obsolescence How many pumps are installed? What type of pump(s) are installed? What type of pump(s) are installed? Is there a pressure gauge connection point on the discharge piping? What is the condition of the piping? Is there a gate valve on the inlet piping side of the reservoir? Is there a gate valve on the inett piping side of the reservoir? Is there a gate valve on the inett piping side of the reservoir? Is there a gate valve on the indischarge? Does the check valve operate properly as the pump starts and shut downs? Does plug or gate valve open and close freely? Do valves have proper indication and/or lockout? Checking required operational force is reasonable for valve size. Is there a valve chamber outside of the reservoir? Are the bracket and support rails securely installed? What material are the brackets/support rails? What condition are the brackets/support rails in? What condition is the pump lifting chains in? Are the pumps easily removed for maintenance purposes? Can the level controls be accessed on the ground level without entering the reservoir? Are the valves easily accessible? Is there a significant vibration during pump operation? Is there a cavitation noise during pump operation? Are there backup pumps available in the Worksyard? What issues are there with the piping if any? Reservoir is routinely cleaned and have been recently cleaned? Capacity is suitable for fire flows? Is temperature monitored in summer? What is the ADD/MDD of system?	Y Y Y Y	No n/a n/a n/a	x x x x x x x x x x x x x x x x x x x	Check value in inlet/outlet No (typ.) Rotating wood slot lid with valve lids On top of resevoir, or inside Comments 10-12 years ago cleaned installed in 2010





Hopkins Landing Waterworks District Water System Condition Assessment

Appendix B - Site Photos







Figure 1 North Well House



Figure 2 North Well House Interior



Figure 3 North Well House Piping Configuration

Figure 4 North Well House Interior





Figure 5 South Well House



Figure 6 South Well House Control Panel



Figure 7 South Well House Site Access



Figure 8 South Well House Electrical





ING

Figure 9 South Well House Piping

Figure 10 South Well House Piping Configuration

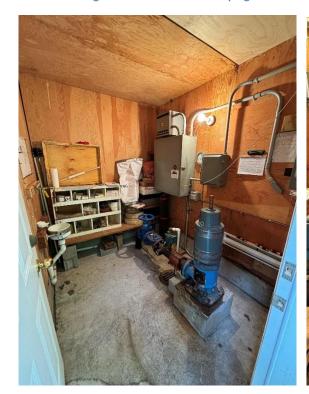






Figure 12 South Well House Pump





Figure 13 North Tank



Figure 14 South Tank





Figure 15 South Tank Roof Access



Figure 16 North Tank Roof Access





Figure 17 Tank Access Vehicle Gate



Figure 19 North Tank Float Controls



Figure 18 North Tank Flat Levels Electrical



Figure 20 North Tank Valve Chamber





Figure 21 Site Electricals & Controls



Figure 23 Structure Housing Controls and Elecrical Onsite



Figure 22 Site Controls



Figure 24 Future Electrical Expansion



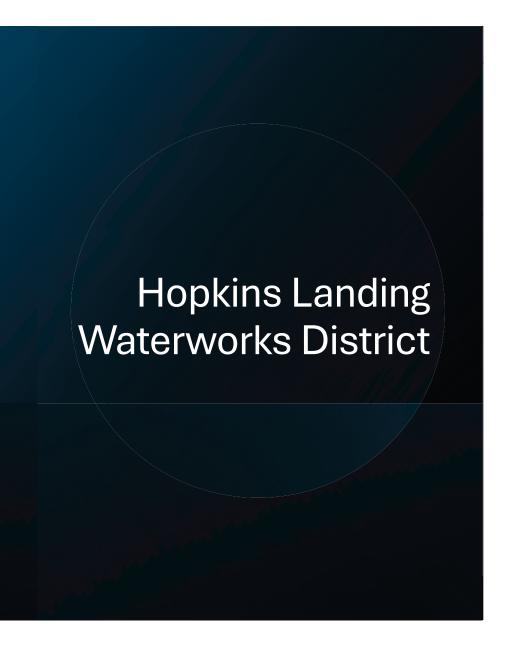
Condition Assessment & Feasibility Study

Presented by:

Onsite Engineering Ltd.

November 28, 2024





Overview of Water System



Established in 1968



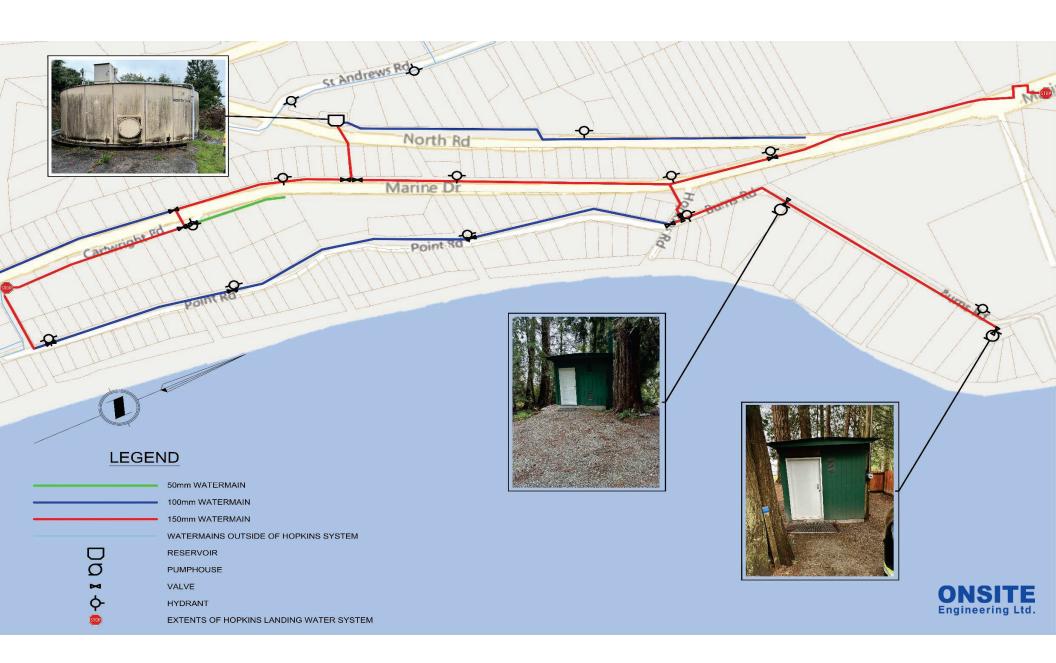
Services approximately 170 properties



Comprised of:

Two Wells
Two Reservoirs
3.5 km Watermains





Well House Overview



North Well Mechanics

- Water quality meets Canadian Water Drinking Guidelines
- Can supply about 24.6 L/s
- Aging infrastructure does not currently meet Groundwater Protection Regulations





South Well Mechanics





Demands

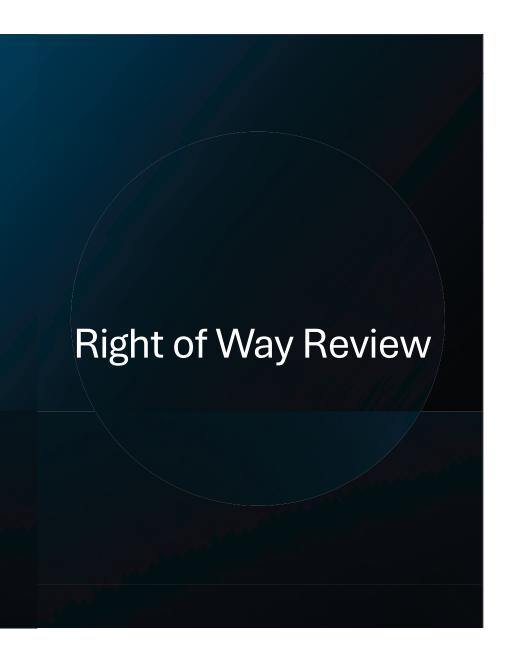
Unmetered System Demands:	Demand
Maximum Day Demand (MDD):	6.2 L/s
Average Day Demand (ADD)	2.75 L/s
Peak Hour Demand (PHD)	9.3 L/s



Demands (Cont'd)

Required Storage Capacity:	Storage Required
Fire Storage	291,600 L
Equalization Storage	134,000 L
Emergency Storage	106,400 L
Total	532,000 L
Existing Storage	375,000 L
Deficit	157,000 L





Property	Asset	ROW Status
(No Civic Address)	Reservoirs	Owned by HLWD.
1370 Burns Road	Well House	ROW in place.
1298 Burns Road	Well House	No ROW in place.
1084 Marine Drive	Watermain	No ROW in place; watermain suspected to cross private property. Verbal agreement in place.
1154 Marine Drive	Watermain	Property lines appear to be shifted to accommodate road widening; location of watermain is unknown.
1146B Marine Drive	Watermain	Property lines appear to be shifted to accommodate road widening; location of watermain is unknown.
1136 Cartwright Road	Watermain	Property lines appear to be shifted to accommodate road widening; location of watermain is unknown.
1175 Marine Drive	Watermain & Overhead Communications	No ROW in place. Verbal agreement with residents to provide access to watermain. No agreement in place for overhead wiring. Service connection suspected to be connected on private property.
1181 Marine Drive	Watermain & Overhead Communications	No ROW in place. Verbal agreement with residents to provide access to watermain. No agreement in place for overhead wiring. Service connection suspected to be connected on private property.





Existing Groundwater Use Application: 50,005 m³ yearly



SCRD bylaws: ability to provide each parcel with 2,500 L/day (155,125 m³ yearly)



New Groundwater Use Application may be required to increase volume



Hopkins Landing Improvements

Existing Distribution System

Material	Diameter (mm)	Length (m)
Asbestos Cement	50	115
	100	1,125
	150	1,930
PVC	100	170
Steel	150	132
Ductile Iron	100	80
Total		3,552

Recommended System Upgrades

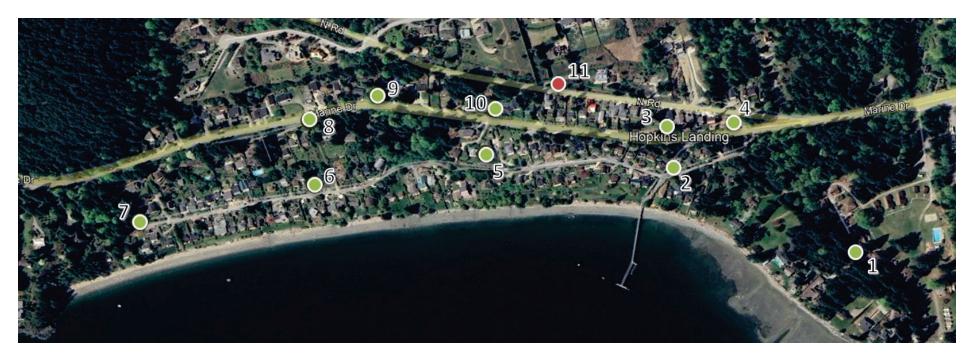
Material	Diameter (mm)	Length (m)
Ductile Iron	150	352
	200	3,200
System Looping	200	128
Total		3,680





Hopkins Landing Improvements

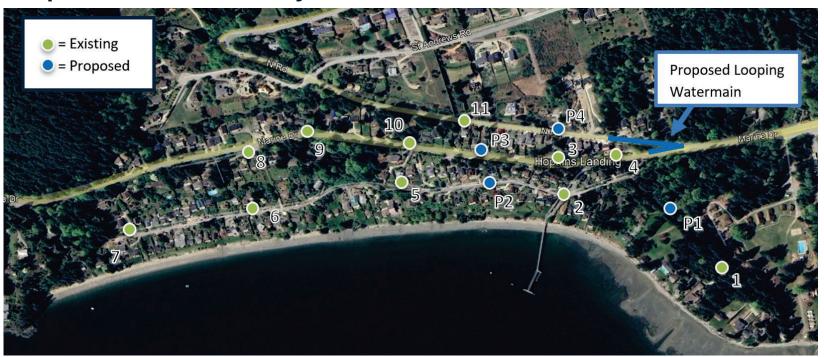
Existing Fire Flows & Hydrants





Hopkins Landing Improvements

Proposed Fire Flows & Hydrants





Options to Integrate into SCRD

01

Operate as an independent water system

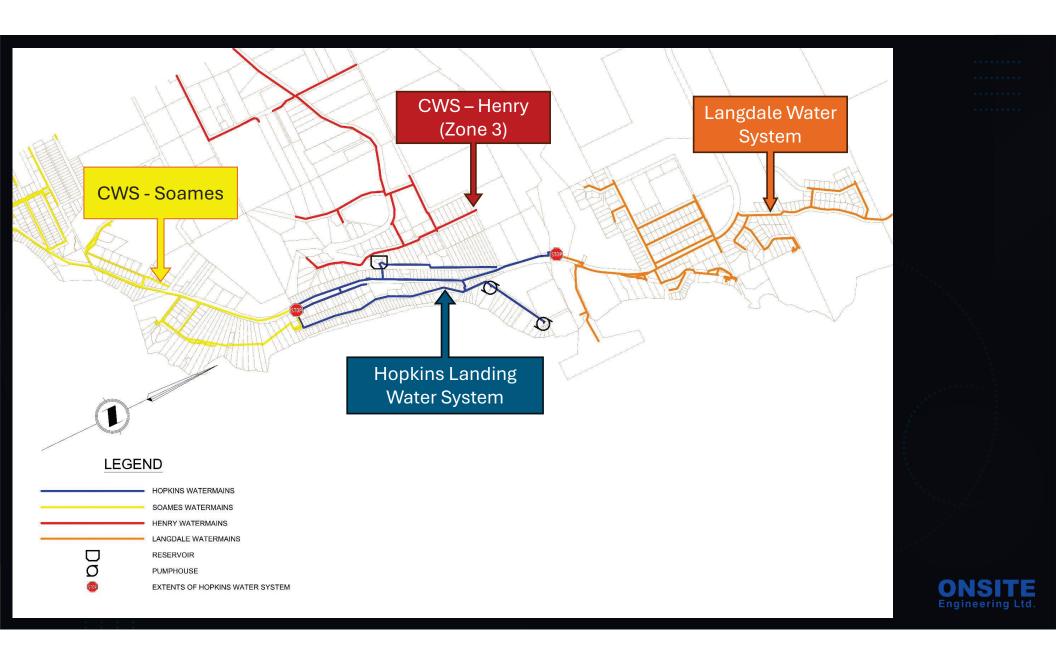
02

Connect to
Chapman Water
System via Soames

03

Connect to
Chapman Water
Systems via Henry
(Zone 3)





Option One

- Remain as an Independent System
- Water Treatment Required
 - Option 1-1: Treat at Both Wells
 - Option 1-2: Treat at One Well
 - Option 1-3: Treat at Reservoir



Option Two

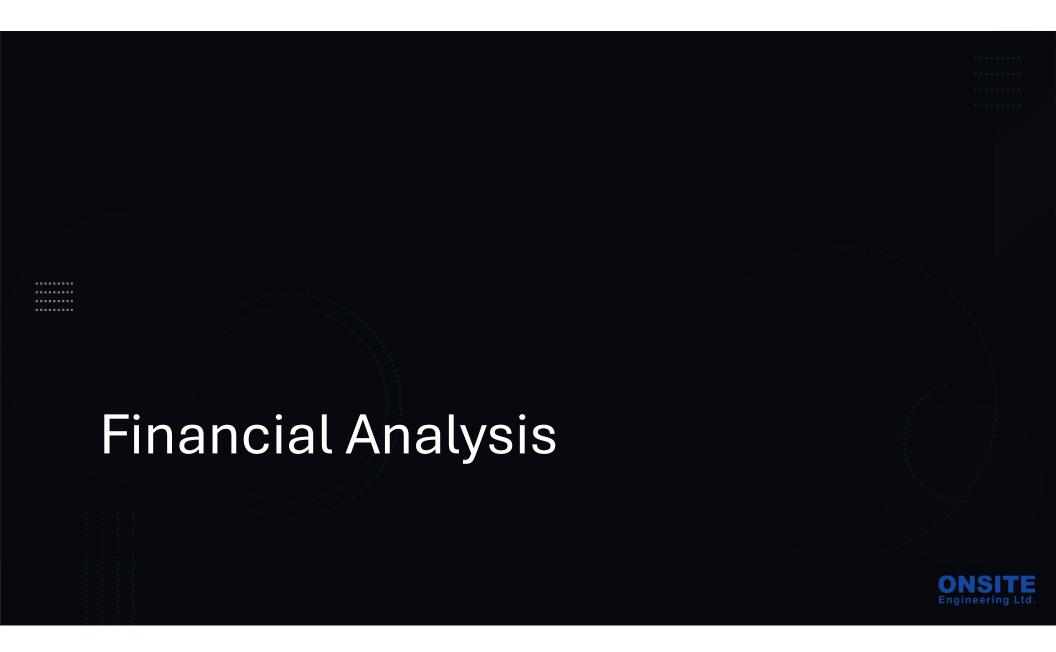
- Connect to Chapman Water System via Soames
- Pros:
 - Similar elevation (no PRV required)
 - Pre-existing Connection
 - Soames well has capacity to provide water to Hopkins without impacting overall water supply in Chapman water system
 - No treatment is required
 - Increases available water storage to both Hopkins and Soames
- Cons:
 - Puts additional demand on Chapman water system if Hopkins wells not upgraded and connected to Chapman system.
 - Currently difficult to connect Hopkins to Chapman without a new supply main from Hopkins.



Option Three

- Connect to Chapman Water System via Henry (Zone 3)
- Pros
 - Improve system pressure for residents in St. Andrews area
- Cons
 - PRV Required
 - No existing connection
 - Under drought conditions, less water availability
 - Adding additional demand to Chapman system
 - Currently difficult to connect Hopkins to Chapman without a new supply main from Hopkins.





Base Upgrade Costs

Hopkins Landing Base Upgrade Costs	Unit	Quantity	Unit Rate	Amount
Permanent Pavement Restoration	Square Meter	10,656	\$80	\$852,480
Watermain DI Imported Backfill	Lineal Metres	3,680	\$650	\$2,392,000
Valve Chambers	Each	2	\$5,000	\$10,000
Valves	Each	29	\$2,500	\$72,500
Fittings	Each	17	\$1,500	\$25,500
Replacement of Fire Hydrants	Each	11	\$12,000	\$132,000
Installation of New Hydrants	Each	4	\$10,000	\$40,000
Water Service Connections	Each	170	\$2,500	\$425,000
Water Meters	Each	170	\$2,500	\$425,000
Watermain Tie-In	Lump Sum	3	\$8,000	\$24,000
New Well	Each	2	\$150,000	\$300,000
Decommission Existing Well	Each	2	\$40,000	\$80,000
New Well House	Lump Sum	2	\$600,000	\$1,200,000
			SubTotal	\$5,978,480
			Contingency (50%)	\$2,989,240
			GST (5%)	\$298,924
			Total	\$9,256,644

Option One Costs

Option 1-1

Option 1 Base Upgrade Costs				\$5,978,480
Pre-Packaged Water Treatment System	Each	2	\$90,000	\$180,000
			SubTotal	\$6,158,480
		Conti	ngency (50%)	\$3,079,240
			GST (5%)	\$307,924
			Total	\$9,545,644



Option One Costs (Cont'd)

Option 1-2

			Total	\$9,759,544
			GST (5%)	\$314,824
		Cont	tingency (50%)	\$3,148,240
			SubTotal	\$6,296,480
Supply Main	Lineal Metres	320	\$650	\$208,000
Pre-Packaged Water Treatment System	Lump Sum	1	\$110,000	\$110,000
Option 1 Base Upgrade Costs				\$5,978,480



Option One Costs (Cont'd)

Option 1-3

			Total	\$10,595,769
			GST (5%)	\$341,799
		Cont	ingency (50%)	\$3,417,990
			SubTotal	\$6,835,980
Supply Main	Lineal Metres	1050	\$650	\$682,500
Seacan	Lump Sum	1	\$65,000	\$65,000
Pre-Packaged Water Treatment System	Lump Sum	1	\$110,000	\$110,000
Option 1 Base Upgrade Costs				\$5,978,480



Option Two Costs

Oi	pti	on	2
----	-----	----	---

Permanent Pavement Restoration	Square Meter	10,656	\$80	\$852,480
Watermain DI Imported Backfill	Lineal Metres	3,680	\$650	\$2,392,000
Valve Chambers	Each	2	\$5,000	\$10,000
Valves	Each	29	\$2,500	\$72,500
Fittings	Each	17	\$1,500	\$25,500
Replacement of Fire Hydrants	Each	11	\$12,000	\$132,000
Installation of New Hydrants	Each	4	\$10,000	\$40,000
Water Service Connections	Each	170	\$2,500	\$425,000
Water Meters	Each	170	\$2,500	\$425,000
Watermain Tie-In	Lump Sum	3	\$8,000	\$24,000
New Well	Each	2	\$150,000	\$300,000
Decommission Existing Well	Each	2	\$40,000	\$80,000
New Well House	Lump Sum	2	\$600,000	\$1,200,000
			SubTotal	\$5,978,480
		Со	ntingency (50%)	\$2,989,240
			GST (5%)	\$298,924
			Total	\$9,266,644

Option Three Costs

Option 3

			Total	\$9,866,804
			GST (5%)	\$318,284
		Contin	gency (50%)	\$3,182,840
			SubTotal	\$6,365,680
Watermain DI Imported Backfill	Lineal Metres	80	\$650	\$52,000
Permanent Pavement Restoration	Square Meter	240	\$80	\$19,200
Additional Connection to Henry (Zone 3)	Lump Sum	2	\$8,000	\$16,000
PRV Station	Lump Sum	1	\$300,000	\$300,000
Hopkins Landing Base Upgrade Costs				\$5,978,480





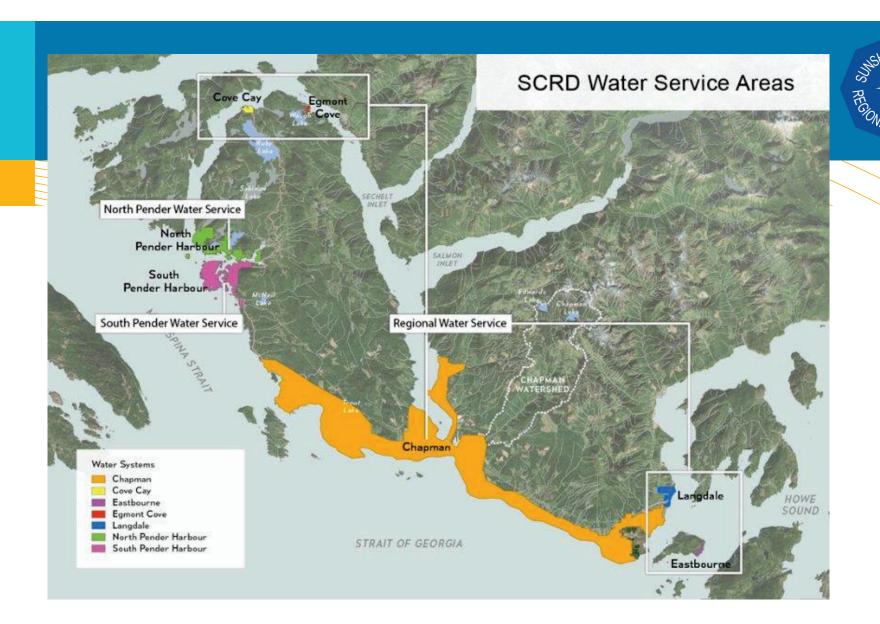
Water Service vs Water System

Water Service:

- A defined service is provided to residents within a defined area.
- Each service is 100% funded by the users or/or landowners of a service area.

Water system:

- An area to which water is provided by one or more water sources.



Service funding



- Annual operating costs are funded from:
 - User Fees (Regional Water Service 2024: \$715)
 - Reserves
 - **Volumetric Billing implemented as of January 1, 2027
- Capital improvements are funded from:
 - Parcel Tax (Regional Water Service 2024: \$449.90)
 - Reserves
 - Loans
 - Potentially grants

Preliminary Options Water Service / Water system

	Regional Water Service (RWS)	Hopkins Landing Water Service	
Chapman	Operational and capital cost Hopkins Landing are combined with other	Operational cost Hopkins Landing are combined with those of other water systems within Regional Water Service.	
Water System	water systems users/landowners within RWS	Funding of capital upgrades Hopkins Landing could be by Hopkins Landing residents only, in additional to contributing to capital costs RWS.	
Hopkins Landing Water System	Operational and capital cost Hopkins Landing are combined with other water systems users/landowners within RWS	Operating and capital costs for Hopkins water system are 100% funded by Hopkins Landing residents	

Conversion Process Hopkins Landing Waterworks District

Guided by Provincial guideline:

- Improvement District Conversion Guide

Key decisions:

- Dissolution of Improvement District (Province)
- Establishment of new service or integration in Regional Water Service (SCRD Board)
- Integration into Chapman Water system or keep as independent water system (SCRD Board)

What could be next in 2025-2027

- Report currently scheduled for the SCRD Board on January 23, 2025:
 - Technical feasibility study
 - Comments received from you
 - Staff's assessment of options
 - Outcome: Potentially a decision about if the SCRD is interested in pursuing conversion and the option on how to do so.
- Further financial, legal and technical analyses is be required.
- Legal conversion process with Province (start January 1, 2026, at the earliest).
- Secure funding for required capital improvements (e.g. grant or long-term loan).
- Develop and construct infrastructure upgrades.

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Committee of the Whole – January 23, 2025

AUTHOR: Jesse Waldorf, Manager, Capital Projects

SUBJECT: CHASTER WELL MAINTENANCE AND UPGRADE - BUDGET AMENDMENT

RECOMMENDATION(S)

(1) THAT the report titled Chaster Well Maintenance and Upgrade – Budget Amendment be received for information;

- (2) AND THAT the budget for the Chaster Well Maintenance and Upgrade Project be increased by \$329,000 funded from [370] Regional Water Service Capital Reserves:
- (3) AND THAT the increase to the budget be included in the draft 2025-2029 Financial Plan;
- (4) AND FURTHER THAT this recommendation be forwarded to the January 23, 2025 Board meeting.

BACKGROUND

The Chaster Road Well, originally constructed in 1970 and one of the water supply sources for the Chapman Waster System, experienced critical failure in August 2024; the submersible pump failed beyond repair. As this well provides about 10-12% of the summer water supply for this water system this failure would need to be addressed urgently.

The current budget, totalling \$128,500 with \$50,000 allocated in 2018 and an additional \$78,500 in 2023, was intended to address several non-compliances of the well with the Groundwater Protection Regulation and some upgrades to the instrumentation. Some of these upgrades have been completed and some still to be completed.

The purpose of this report is to seek Board approval for additional project budget to address the recent pump failure.

DISCUSSION

The remaining Scope of Work related to the original budget combined with the work to address the pump failure includes:

- 1. Revised engineering design and tendering to address the pump and motor failure.
- 2. Restoration of the well to optimal capacity and performance.

- 3. Replacement of the failed pump with a high-efficiency pump and motor system, including a variable frequency drive (VFD), to improve reliability and integrate with the Regional District's SCADA system.
- 4. Complete design and integration of electrical and control systems for seamless operation.,

As Chaster Well is a critical part of water supply for the Chapman Water System during an extended drought, time is of the essence to complete this project in a timely manner.

It is very likely that Chaster Well will not be able to be activated when Stage 2 Water Conservation Regulations come into effect. If that is the case, on a temporary basis, the Church Road Wellfield would most likely be able to produce the sufficient additional water to offset the amount of water not produced by Chaster Well, or alternatively additional volume could be diverted from Chapman Lake.

Financial Implications

The previously approved budget for this project was \$128,500, allocated for rehabilitating the pump station for the Chaster Well. The original scope included moving the well head, installing new ductile iron piping, and upgrading connections for watermains, chlorination, and controls.

Due to the pump/motor failure, and the need for upgraded electrical and SCADA systems, an additional \$329,000 is required. This includes a 20% contingency to cover any unforeseen costs.

The breakdown is as follows:

Existing Budget	Value	Total
Budget Allocation 2018	\$ 50,000	
Budget Allocation 2023	\$ 78,500	
Expenditures to Date (2018-2024)	(\$ 17,500)	
Existing Budget Available		\$ 111,000
Amended Budget		
Complete remaining original work	\$ 111,000	
Well Redevelopment	\$ 75,000	
Pump and Motor Replacement	\$ 150,000	
Electrical Upgrades	\$ 30,000	
Contingency (20%)	\$ 74,000	
Proposed Amended Budget		\$ 440,000
Total Shortfall		(\$ 329,000)

Timeline for next steps or estimated completion date

Pending Board support for the additional project budget and the adoption of the 2025-2029 Financial plan, staff will present the Board with a contract award report at a future Board meeting.

The timelines for project completion are dependent on the successful contractor's abilities to complete the work in an expedited manner and will be confirmed in the contract award report presented to the Board.

Communications Strategy

Information on this project will be shared broadly via local media, corporate newsletters, social media, and the Sunshine Coast Regional District website. Additional information will be provided to property owners in the vicinity of the wellfield.

STRATEGIC PLAN AND RELATED POLICIES

This staff report is aligned with the Board's Service Delivery Focus Area of Water Stewardship: Continue to explore, enhance and develop groundwater and surface water sources.

CONCLUSION

Failure to meet the May 2025 operational deadline for the Chaster Well would risk significant disruptions to the Chapman Water System during peak demand periods. Approving the Financial Plan Amendment ensures that these critical upgrades are completed in the most timely manner possible, prioritizing reliable water supply for the community.

The Chaster Well Maintenance and Upgrade Project is critical to maintaining the operational integrity of the Regional Water System. The pump and motor failure necessitate urgent repairs and upgrades to prevent future service disruptions.

Staff recommend that the budget for the Chaster Well Maintenance and Upgrade Project be increased by \$329,000 for engineering, design, and construction, and to be funded from [370] Regional Water Service Capital Reserves along with an associated amendment to the draft 2025-2029 Financial Plan.

Reviewed by:			
Manager		Finance	X - A. Taylor
GM	X – R. Rosenboom	Legislative	
CAO/CFO	X - T. Perreault	Purchasing and Risk	X - V. Cropp

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Committee of the Whole – January 23, 2025

AUTHOR: Brad Wing, Manager, Financial Services

SUBJECT: 2024 PRELIMINARY SURPLUS / DEFICITS

RECOMMENDATION

(1) THAT the report titled 2024 Preliminary Surplus / Deficits be received for information;

- (2) AND THAT as per the Sunshine Coast Regional District (SCRD) Financial Sustainability Policy, the 2024 surpluses be transferred to reserves as detailed in Attachment A of the report;
- (3) AND THAT the following deficits be funded from Operating Reserves:
 - a. [110] General Government \$1,238
 - b. [204] Halfmoon Bay Smoke Control \$2,557
 - c. [313] Building Maintenance Services \$7,942
 - d. [389] Canoe Road Wastewater Plant \$30
 - e. [506] Geographic Information Services \$4,051
- (4) AND THAT the [155] Feasibility Studies Area F deficit of \$5,625 be funded from 2025 Taxation as previously committed through Board resolution 235/24.
- (5) AND THAT the [210] Gibsons and District Fire Protection Service deficit of \$110,808 be funded from remaining uncommitted operating reserves (\$58,000 est.) with the remainder funded from 2025 taxation (\$52,808 est.);
- (6) AND THAT the [212] Roberts Creek Fire Protection Service deficit of \$36,325 be funded from remaining uncommitted operating reserves (\$2,000 est.) with the remainder funded from 2025 taxation (\$34,325 est.);
- (7) AND THAT the [312] Fleet Maintenance deficit of \$77,739 be funded from remaining uncommitted operating reserves (\$31,000 est.) with the remainder funded from 2025 internal recoveries (\$46,739 est.);
- (8) AND FURTHER THAT the [340] Burns Road Street Lighting service base budget for electricity be increased by \$284 from \$241 to \$525.

BACKGROUND

The purpose of this report is to provide the Committee with a preliminary summary of all the 2024 year-end surpluses, recommended transfers to reserves, and to report on any final year-end deficits requiring approval on proposed funding mitigation.

All values presented are unaudited and subject to change prior to completion of year end processes and adoption of the annual financial statements which is scheduled for April 2025. Material changes are not anticipated; however, should any arise through the course of the year-end audit work, the Board will be notified accordingly.

DISCUSSION

Staff have completed preliminary 2024 year-end processes in preparation of the annual SCRD Financial Statements and external audit. Reconciliation of preliminary surpluses, deficits and recommended allocation for each functional area has been attached for reference (Attachment A).

The options for surplus are outlined within the Financial Sustainability Policy, excerpt below:

4.4 One-time Revenues

Using one-time revenues to fund ongoing expenditures results in unfunded expenditure obligations in future years.

- 4.4.1 <u>Policy:</u> Operating surpluses and one-time revenues will not be used to fund ongoing expenditures. Major one-time revenues will be applied to:
 - Reserves and/or Rate Stabilization in keeping with levels set by the Board:
 - One-time expenditures; or
 - Repayment of outstanding debt.

Surpluses

Surpluses in Electoral Areas' Grant-in-Aid [121-129] and Economic Development [531-535] functions are automatically carried forward in the 2025 Budget. Allocation of those surpluses was addressed during budget deliberations.

Surpluses (or deficits) for the one Regional [320] and ten local Street Lighting functions [322-342] are also automatically carried forward to the 2025 Budget as reserve funds do not exist for these services. These carry forwards are offset by an increase or decrease in taxation.

Of note, the [340] Burns Road Street Lighting local service is in a perpetual deficit situation due to an increase in the number of lights being billed for after an inventory review by BC Hydro and the SCRD completed in 2022. Staff recommend increasing the base budget for electricity in this service by \$284, from \$241 to \$525 to ensure sufficient funding is in place going forward.

Additional surpluses for functions where there is no reserve fund have also been carried forward in the 2025 Budget and used to reduce taxation where applicable. These are as follows:

- [118] SCRHD Administration \$44,524
- [291] Keats Island Dog Control \$2,469
- [315] Mason Road Works Yard \$9,263
- [346] Langdale Dock \$118
- [643] Egmont/Pender Harbour Library Service \$230
- [645] Halfmoon Bay Library Service \$639
- [646] Robers Creek Library Service \$441
- [648] Museum Service \$651

The remaining operating surpluses totaling \$3.968M are recommended to be transferred to operating reserves.

Deficits

Nine services have ended the year in a deficit position. Six of these were identified and reported on as part of the *SCRD Q3 Corporate Financial Variance* report presented to Finance Committee on October 17, 2024, and three are new.

- [110] General Government \$1,238 (not previously reported)
 - This minor deficit can be attributed to salaries and wages being slightly higher than anticipated. In addition, Director remuneration is also over by \$20,740 due to actual stipends being paid over the budgeted amount. This is part of the rationale for the 2025 Budget proposal to increase line items. These overages are being mitigated by lower than budgeted operating expenses.

Uncommitted operating reserves are sufficient to fund this deficit.

- [155] Feasibility Studies Area F \$5,625 (not previously reported)
 - This is an expected deficit related to the New Brighton Dock Feasibility Study which is to be funded through 2025 taxation per Board resolution 235/24.
- [204] Halfmoon Bay Smoke Control \$2,557 (Q3 \$2,763)
 - This deficit is due to higher than budgeted wages and benefits related to Bylaw Enforcement. The service is projected to end the year in a deficit position as a result.

Uncommitted operating reserves are sufficient to fund this deficit.

- [210] Gibsons and District Fire Protection \$110,808 (Q3 \$95,534)
 - Base budget operating expenses for this service were \$72,985 over budget (122% of budget), and salaries and wages were \$46,519 over budget (106% of budget). Material base budget line item variances are attributable to clothing/turn out gear, material and supplies, repairs and maintenance and professional fees.

Uncommitted operating reserves for this service are approximately \$58,000. Staff recommend fully utilizing these reserves with the remaining deficit funded from 2025 taxation.

- [212] Roberts Creek Fire Protection \$36,325 (Q3 \$20,441)
 - Base budget operating expenses for this service are \$31,378 over budget (114% of budget) with material overages in training and development, equipment and repairs and maintenance line items.

Uncommitted operating reserves for this service are approximately \$2,000. Staff recommend fully utilizing these reserves with the remaining deficit funded from 2025 taxation.

- [312] Fleet Maintenance \$77,739 (Q3 \$49,724)
 - This deficit is due to lower than anticipated internal recoveries which are being offset by lower than anticipated operating expenses.

Uncommitted operating reserves for this service are approximately \$36,000. Staff recommend fully utilizing these reserves with the remaining deficit funded from 2025 internal recoveries.

- [313] Building Maintenance \$7,942 (Q3 \$4,328)
 - This deficit is due to lower than anticipated internal recoveries which are being offset by lower than anticipated operating expenses.

Uncommitted operating reserves are sufficient to fund this deficit.

- [389] Canoe Road Wastewater Plant \$30 (not previously reported)
 - Minor immaterial deficit due to higher than anticipated operating expenses, offset by lower than anticipated wages and benefits.

Uncommitted operating reserves are sufficient to fund this deficit.

- [506] Geographic Information Services \$4,051 (Q3 \$12,616)
 - This deficit is a result of lower than anticipated user fee revenue from external services and higher than anticipated wages and benefits.

Uncommitted operating reserves are sufficient to fund this deficit.

Financial Implications

Surpluses transferred to reserves are uncommitted and are available to fund future projects or one-time expenditures.

Recommended funding the Gibsons and District Fire Protection and Roberts Creek Fire Protection deficit through taxation in 2025 will result in a 0.26% increase in overall taxation.

STRATEGIC PLAN AND RELATED POLICIES

Accountability for the budget process and the Financial Plan are encompassed in the Financial Sustainability Policy.

CONCLUSION

Preliminary year-end processes have been completed and reconciled with preliminary functional area surplus deficits calculated. Options for allocation of surpluses are outlined in the Financial Sustainability Policy.

Staff are recommending that \$3.968M of surpluses be transferred to operating reserves as appropriate. Surpluses for Electoral Areas' Grant-in-Aid, Economic Development and Street Lighting and other functions without an operating reserve are automatically carried forward in the budget.

There were nine unfunded deficits totaling \$246,316 that must be funded. Staff are recommending that these deficits be funded through a combination of operating reserves (\$106,818), 2025 taxation (\$92,759) and 2025 internal recoveries (\$46,739) based on available funding sources for each applicable service.

Reviewed by:			
Manager		Finance	
GM		Legislative	
CAO/CFO	X-T. Perreault	Other	

Attachment

A. 2024 Preliminary Surplus/Deficits

Sunshine Coast Regional District 2024 Preliminary Surplus/Deficits (Unaudited)

111 - Asset Management 25,052 (25,052) 113 - Finance 247,110 (247,110) 114 - Administration Office 48,579 (48,579) 115 - Human Resources 62,479 (62,479) 116 - Purchasing & Risk Management 17,710 (17,710) 117 - Information Services 165,451 (165,451) 118 - SCRHD Administration 44,524 (44,524) 121 - Grants in Aid - Area A 3,672 (3,672)	
Function Surplus / (Deficit) Carried Forward in 2025 Budget Operating Reserves Unfunition 110 - General Government (1,238) - - 111 - Asset Management 25,052 (25,052) 113 - Finance 247,110 (247,110) 114 - Administration Office 48,579 (48,579) 115 - Human Resources 62,479 (62,479) 116 - Purchasing & Risk Management 17,710 (17,710) 117 - Information Services 165,451 (165,451) 118 - SCRHD Administration 44,524 (44,524) 121 - Grants in Aid - Area A 3,672 (3,672)	icit ,238
Function (Deficit) in 2025 Budget Reserves Deficit 110 - General Government (1,238) -	icit ,238
110 - General Government (1,238) - 111 - Asset Management 25,052 (25,052) 113 - Finance 247,110 (247,110) 114 - Administration Office 48,579 (48,579) 115 - Human Resources 62,479 (62,479) 116 - Purchasing & Risk Management 17,710 (17,710) 117 - Information Services 165,451 (165,451) 118 - SCRHD Administration 44,524 (44,524) 121 - Grants in Aid - Area A 3,672 (3,672)	- - - - - - - - -
111 - Asset Management 25,052 (25,052) 113 - Finance 247,110 (247,110) 114 - Administration Office 48,579 (48,579) 115 - Human Resources 62,479 (62,479) 116 - Purchasing & Risk Management 17,710 (17,710) 117 - Information Services 165,451 (165,451) 118 - SCRHD Administration 44,524 (44,524) 121 - Grants in Aid - Area A 3,672 (3,672)	- - - - - - -
113 - Finance 247,110 (247,110) 114 - Administration Office 48,579 (48,579) 115 - Human Resources 62,479 (62,479) 116 - Purchasing & Risk Management 17,710 (17,710) 117 - Information Services 165,451 (165,451) 118 - SCRHD Administration 44,524 (44,524) 121 - Grants in Aid - Area A 3,672 (3,672)	- - - - - -
114 - Administration Office 48,579 (48,579) 115 - Human Resources 62,479 (62,479) 116 - Purchasing & Risk Management 17,710 (17,710) 117 - Information Services 165,451 (165,451) 118 - SCRHD Administration 44,524 (44,524) 121 - Grants in Aid - Area A 3,672 (3,672)	- - - - - -
115 - Human Resources 62,479 (62,479) 116 - Purchasing & Risk Management 17,710 (17,710) 117 - Information Services 165,451 (165,451) 118 - SCRHD Administration 44,524 (44,524) 121 - Grants in Aid - Area A 3,672 (3,672)	- - - - -
116 - Purchasing & Risk Management 17,710 (17,710) 117 - Information Services 165,451 (165,451) 118 - SCRHD Administration 44,524 (44,524) 121 - Grants in Aid - Area A 3,672 (3,672)	- - -
117 - Information Services 165,451 (165,451) 118 - SCRHD Administration 44,524 (44,524) 121 - Grants in Aid - Area A 3,672 (3,672)	- - -
118 - SCRHD Administration 44,524 (44,524) 121 - Grants in Aid - Area A 3,672 (3,672)	- -
121 - Grants in Aid - Area A 3,672 (3,672)	-
	-
122 - Grants in Aid - Area B 3,933 (3,933)	
123 - Grants in Aid - Area E & F 4,340 (4,340)	-
125 - Grants in Aid - Community Schools 749 (749)	
126 - Greater Gibsons Community Participation 1,113 (1,113)	-
127 - Grants in Aid - Area D 3,036 (3,036)	-
128 - Grants In Aid - Area E 2,615 (2,615)	-
129 - Grants In Aid - Area F 2,360 (2,360)	-
130 - Electoral Area Services - UBCM/AVICC 23,942 (23,942)	-
131 - Electoral Area Services - Elections	-
135 - Corporate Sustainability Services 17,124 (17,124)	-
136 - Regional Sustainability Services 14,253 (14,253)	-
140 - Member Municipality Debt	-
	5,625
200 - Bylaw Enforcement 33,294 (33,294)	-
	2,557
206 - Roberts Creek Smoke Control 1,137 (1,137)	<u>-</u>
,	308,0
	5,325
216 - Halfmoon Bay Fire Protection 47,066 (47,066)	
218 - Egmont Fire Protection 35,210 (35,210)	-
220 - Emergency Telephone - 911 68,898 (68,898)	-
222 - Sunshine Coast Emergency Planning 79,456 (79,456)	-
290 - Animal Control 21,703 (21,703)	-
291 - Keats Island Dog Control 2,469 (2,469)	-
310 - Public Transit 484,473 (484,473)	-
, , , , ,	7,739
	7,942
315 - Mason Road Works Yard 9,263 (9,263)	
320 - Regional Street Lighting 12,457 (12,457)	-
322 - Langdale Street Lighting 90 (90)	-
324 - Granthams Street Lighting 90 (90)	-
326 - Veterans Street Lighting 18 (18)	-
328 - Spruce Street Lighting 19 (19)	-
330 - Woodcreek Street Lighting 319 (319)	-
332 - Fircrest Street Lighting 624 (624)	-
334 - Hydaway Street Lighting 19 (19)	-
336 - Sunnyside Street Lighting 35 (35)	-
340 - Burns Road Street Lighting (235) 235	-

		Recommended	I Allocation	
	Year End		Transfer to	
	Surplus /	Carried Forward	Operating	Unfunded
Function	(Deficit)	in 2025 Budget	Reserves	Deficit
342 - Stewart Road Street Lighting	18	(18)		_
345 - Ports Services	69,128	(10)	(69,128)	_
346 - Langdale Dock	118	(118)	(33,:23)	_
350 - Regional Solid Waste	940,489	(1.0)	(940,489)	
355 - Refuse Collection	47,855		(47,855)	
365 - North Pender Harbour Water Service	127,455		(127,455)	_
366 - South Pender Harbour Water Service	168,657		(168,657)	_
370 - Regional Water Services	446,624		(446,624)	-
381 - Greaves Rd Waste Water Plant	1,244		(1,244)	_
382 - Woodcreek Park Waste Water Plant	6,729		(6,729)	_
383 - Sunnyside Waste Water Plant	1,191		(1,191)	
384 - Jolly Roger Waste Water Plant	8,410		(8,410)	
385 - Secret Cove Waste Water Plant	4,776		(4,776)	
386 - Lee Bay Waste Water Plant	5,837		(5,837)	
387 - Square Bay Waste Water Plant	23,459		(23,459)	
388 - Langdale Waste Water Plant	26,433		(26,817)	
389 - Canoe Rd Waste Water Plant	(30)		(20,017)	30
390 - Merrill Crescent Waste Water Plant	6,646		(6,646)	- 30
391 - Curran Rd Waste Water Plant	2,230		(2,230)	
392 - Roberts Creek Co-Housing Treatment Plant	16,184		(16,184)	
393 - Lillies Lake Waste Water Plant	4,111		(4,111)	
394 - Painted Boat Waste Water Plant	3,603		, , ,	-
	19,397		(3,603)	
395 - Sakinaw Ridge Waste Water Plant 400 - Cemetery	13,455		(19,397)	-
410 - Pender Harbour Health Clinic	653		(13,455)	-
			(653) (73,696)	
500 - Regional Planning	73,696		, ,	-
504 - Rural Planning Services	25,461		(25,461)	4.051
506 - Geographic Information Services	(4,051)		- (1E 7E0)	4,051
510 - Civic Addressing	15,753		(15,753)	-
520 - Building Inspection Services	143,670	(4.004)	(143,670)	-
531 - Economic Development Area A	1,961	(1,961)		-
532 - Economic Development Area B	2,369	(2,369)		
533 - Economic Development Area D	1,817	(1,817)		-
534 - Economic Development Area E	1,775	(1,775)		-
535 - Economic Development Area F	1,847	(1,847)	(4.40)	-
540 - Hillside Development Project	148		(148)	-
615 - Community Recreation Facilities	175,723		(175,723)	-
625 - Pender Harbour Pool	55,661		(55,661)	-
630 - School Facilities - Joint Use	23,699		(23,699)	
640 - Gibsons & Area Library	13,734	(222)	(13,734)	-
643 - Egmont/Pender Harbour Library Service	230	(230)		-
645 - Halfmoon Bay Library Service	639	(639)		
646 - Roberts Creek Library Service	441	(441)		-
648 - Museum Service	651	(651)		-
650 - Community Parks	23,156		(23,156)	-
665 - Bicycle & Walking Paths	35,637		(35,637)	-
667 - Area A Bicycle & Walking Paths	7,814		(7,814)	-
670 - Regional Recreation Programs	16,622		(16,622)	-
680 - Dakota Ridge Recreation Service Area	19,701		(19,701)	-
Totals	\$ 3,825,422	\$ (103,375) \$	(3,968,363)	\$ 246,316

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Committee of the Whole – January 23, 2025

AUTHOR: Tina Perrault, Chief Administrative Officer / Chief Financial Officer

SUBJECT: CONSTITUENCY EXPENSES AND REIMBURSEMENT OF DIRECTORS' TRAVEL AND

OTHER EXPENSES POLICIES

RECOMMENDATIONS

THAT the report titled Constituency Expenses and Reimbursement of Directors' Travel and Other Expenses Policies be received for information;

AND THAT the Committee review and approve the Constituency Expenses and Reimbursement of Directors' Travel and Other Expenses policies as amended.

BACKGROUND

At the December 12, 2024, Regular Board meeting, the following resolution was passed:

350/24 It was moved and seconded

That the Constituency Expenses policy (BRD-0340-50-010) be amended to incorporate the following changes:

- a) Clarification that "Constituency Business" relates to SCRD related political activities only, and should further the business of the organization;
- b) Clarification that invoiced receipts submitted should be in the Director's name;
- c) Amend the \$100 home internet and phone related expenses to include incidental supportive items such as cables and chargers;
- d) Amend constituency events to add "public" and indicate examples (snacks for a meet and greet, coffee at a coffee chat, community faire booth rental, etc);
- e) Replace "Constituency office expenses" with "Office supplies supporting SCRD Business" and provide examples such as paper, ink, and other consumables;
- f) Add a clause that expenses must not be submitted for reimbursement to any other organization or agency (no "double dipping");
- g) Add a clause for all expense forms submitted to be published quarterly either on the SCRD website or as part of a committee agenda;
- h) Change the approval of Directors Expenses from CAO to Board Chair and CAO, with the exception that the Chair expenses be approved by the Vice-Chair and CAO;

i) Add a clause that any expenses denied by the Board Chair or CAO may be approved through a vote of the Board.

AND FURTHER THAT the Reimbursement of Directors' Travel and Other Expenses policy (BRD-0340-50005) be amended to incorporate the following changes:

- a) Clarification that meal expenses may be claimed when attending a conference out of region, as part of the function of an appointed SCRD liaison (or their alternate) to an outside agency, or as part of a business meeting with constituents or constituency groups;
- b) Add a definition for business meeting as "a meeting related to a SCRD services between SCRD elected officials, with community group, or member of the public on SCRD matters";
- c) Clarification that additional meal expenses during travel are only to be claimed when out of SCRD boundaries, either travelling to or from a previously approved conference or meeting;
- d) Add a clause that approval for meal or travel expenses may be denied by the Board Chair or CAO if not for SCRD related business;
- e) Add a clause that when Director's travel is primarily by public transit, a monthly transit pass is an eligible expense;
- f) Add a clause for e-bikes to match the employee policy such as "Travel Allowance payable for kilometres travelled by bicycle (or e-bike), (excluding distance covered by ferry crossing) will be paid at 50% of the equivalent vehicle rate and Directors must follow all provincial and associated safety regulations";
- g) Clarification that expenses must not be submitted for reimbursement to any other organization or agency (no "double dipping"). This affirmation should also be added directly to the expense form, to align with other local government practices;
- h) Add a clause for all expense forms submitted to be published quarterly either on the website or as part of a committee agenda;
- i) Change the approval of Directors Expenses from CAO to Board Chair and CAO, with the exception that the Chair expenses be approved by the Vice-Chair and CAO;
- j) Add a clause that any expenses denied by the Board Chair or CAO may be approved through a vote of the Board. And that both amended policies be brought to a January Board meeting for consideration of adoption.

DISCUSSION

The following proposed amendments are already covered in the current policy and as such, staff have not incorporated the changes into the amended Constituency Expenses policy:

a) Clarification that "Constituency Business" relates to SCRD related political activities only, and should further the business of the organization;

Constituency expenses are for the political business of the Directors and are not related to SCRD business therefore no further clarification is needed for the definition of Constituency Business.

b) Clarification that invoiced receipts submitted should be in the Director's name;

The policy scope states that this policy applies to "Directors of the SCRD" and defines Director as "an Electoral Area Director or Municipal Director", therefore no further clarification is needed regarding the name on receipts.

e) Replace "Constituency office expenses" with "Office supplies supporting SCRD Business" and provide examples such as paper, ink, and other consumables;

Constituency expenses are for the political business of the Directors and are not related to SCRD business therefore staff have left the Constituency Office Expenses as is and added the examples listed above.

The following proposed amendments are already covered in the current policy and as such, staff have not incorporated the changes into the amended Reimbursement of Directors' Travel and Other Expenses policy:

a) Clarification that meal expenses may be claimed when attending a conference out of region, as part of the function of an appointed SCRD liaison (or their alternate) to an outside agency, or as part of a business meeting with constituents or constituency groups;

The last part of the above clause "or as part of a business meeting with constituents or constituency groups" is covered by the Constituency Expenses policy and not eligible for reimbursement under this policy.

b) Add a definition for business meeting as "a meeting related to a SCRD services between SCRD elected officials, with community group, or member of the public on SCRD matters";

This is already covered by the current definition of "SCRD Business" and that an additional definition specific to meetings is not necessary.

d) Add a clause that approval for meal or travel expenses may be denied by the Board Chair or CAO if not for SCRD related business;

The scope of the policy and definition of "SCRD Business" is clear and will be covered by the new clause about expenses that are denied by the CAO and/or Chair.

Staff have updated the Constituency Expenses and Reimbursement of Directors' Travel and Other Expenses policies to address all other proposed amendments.

STRATEGIC PLAN AND RELATED POLICIES

N/A

CONCLUSION

Staff recommend the Board adopt the Constituency Expenses and Reimbursement of Directors' Travel and Other Expenses policies as amended or suggest further amendments as they see fit.

ATTACHMENTS

Attachment A - BRD-0340-50-010 Constituency Expenses policy – Amended

Attachment B - BRD-0340-50-005 Reimbursement of Travel and Other Expenses – Amended

Reviewed I	oy:		
Manager		Finance	
GM		Legislative	X – S. Reid
CAO		Other	



Division:	Financial Services	BRD-0340-50
Title:	Constituency Expenses	010

1. PURPOSE

1.1 To provide clarification regarding allowable constituency expenses.

2. SCOPE

2.1 This policy Aapplies to all Directors of the Sunshine Coast Regional District (SCRD)who incur expenses while engaged in constituency business.

3. **DEFINITIONS**

- 3.1 "Device" means electronic, or technology equipment as described within this policy.
- 3.2 "Director" means an Electoral Area Director or Municipal Director.
- **3.3** "Constituency Business" means business that pertains to political activities of a Director including acting on behalf of constituent interests.
- **3.4 "Constituency Expenses"** means costs incurred by a Director to conduct constituency business.
- **3.5** "SCRD Business" means the business of the Regional District and requires an operational decision or Board consideration for action or decision.

4. POLICY

- **4.1** Directors may be reimbursed up to a maximum of \$2,500 for constituency expenses per year. If required, and only after the \$2,500 has been depleted, each Electoral Area Director may be reimbursed up to an additional \$1,000, funded by electoral areas only.
- **4.2** Devices must be purchased within the first two years of the Director's term. The Director retains ownership of the device at the end of the term; therefore, it is a taxable benefit.
- **4.3** Constituency expenses include:
 - 4.3.1 Devices including cell phones, computers (PC or laptop), printers, tablets, computer monitors, headphones (not supported by SCRD).
 - 4.3.2 Postage.
 - 4.3.3 Constituency office expenses—such as paper, ink, and other consumables.
 - 4.3.4 Printing supplies.
 - 4.3.54.3.4 Advertising costs.
 - 4.3.64.3.5 Constituency newsletters.
 - 4.3.74.3.6 Travel expenses in support of constituency issues.
 - 4.3.84.3.7 Constituency events, excluding alcohol. Public constituency events (including snacks for a meet and greet, coffee at a coffee chat, community fair booth rental, etc.).
 - 4.3.94.3.8 Websites.
 - 4.3.104.3.9 Monthly stipend of up to \$100 to reimburse home related internet and phone (landline or cellular) charges or technical support, and incidental supportive items such as cables and chargers. This is a taxable benefit.
- **4.4** Alternatively, upon request the SCRD will supply Directors with a tablet and a cell phone complete with plan at the beginning of the term. These devices will remain the property of the SCRD; however, Directors may purchase the devices at a depreciated cost at the end of their term. Devices not purchased must be returned to the SCRD at the end of the Director's term.
- **4.5** Devices provided by the SCRD will receive SCRD IT support; devices purchased using constituency funds must be maintained and supported by the Director.
- **4.6** Claims for constituency expenses must be submitted within 60 days of the earliest expense incurred. Directors must provide a detailed accounting complete with receipts for each claim (other



- than for mileage). Finance will ensure that all constituency expense claims are processed within a two-week period.
- **4.7** Constituency expenses for the previous calendar year must be submitted no later than January 10 of the following year. Constituency expenses submitted after this date will not be eligible for reimbursement.
- <u>4.8</u> In an election year, constituency expenses must be submitted prior to the campaign period, which is generally established 28 days prior to the election.
- 4.84.9 Expense forms submitted to the SCRD may be published quarterly, either on the SCRD's website or as part of a committee agenda.

5. EXCEPTIONS

- **5.1** Expenses incurred while engaged in SCRD business are exempt from this policy as they are covered under the Reimbursement of Travel and Other Expenses policy.
- **5.2** Constituency expenses submitted for reimbursement to any other organization or agency will not be reimbursed.

5.6. AUTHORITY TO ACT

- **5.16.1** Board
 - 5.1.16.1.1 To be familiar with this policy and to utilize it as a lens to provide focususe it as a guide for determining eligible constituency expenses.
- 5.26.2 Chief Administrative Officer (CAO) and Board Chair
 - 6.2.1 To review and approve Directors' expense claims with the Board Chair prior to payment.
 - a) Board Chair expenses will be reviewed and approved by the CAO and Vice-Chair.
 - a) Expenses denied by the Board Chair or CAO may be approved through a vote of the Board at the request of the Director.
 - <u>b)</u>
 - 5.2.26.2.2 To determine the depreciation rate used to calculate buyout price, consistent with asset management practices within the SCRD.
 - 5.2.36.2.3 To make write off decisions on items of low residual value.
- 5.36.3 General Manager, Corporate Services/Chief Financial Officer
 - 5.3.16.3.1 To provide advice and clarification regarding this policy.
 - 5.3.26.3.2 To ensure that constituency expense claims are processed within a two-week period.

6.7. REFERENCES (Bylaws, Procedures, Guiding documents)

7.1 BRD-0340-50-005 Reimbursement of Directors' Travel and Other Expenses

Approval Date:	April 4, 2004	Resolution No.	288/04
Amendment Date:	February 12, 2009	Resolution No.	045/09, Rec. No. 17
Amendment Date:	February 10, 2011	Resolution No.	060/11, Rec. No. 2
Amendment Date:	December 11, 2014	Resolution No.	579/14, Rec. No. 4
Amendment Date:	February 9, 2023	Resolution No.	031/23, Rec. No. 7
Amendment Date:		Resolution No.	

Constituency Expenses



Division:	Financial Services	BRD-0340-50
Title:	Reimbursement of Directors' Travel and Other Expenses	005

1. PURPOSE

1.1 To clarify how various provisions provide clarification regarding with respect to reimbursement of travel and other expenses will be administered.

2. SCOPE

2.1 This procedure policy applies to all Directors and Alternate Directors who incur expenses while engaged in Sunshine Coast Regional District (SCRD) business, unless otherwise stated.

3. **DEFINITIONS**

3.1 "SCRD Business" means activity that furthers the business of the SCRD and may require Board consideration or decision, includinges attendance at conferences, conventions, meetings, and seminars.

3.1

4. POLICY

- **4.1** The SCRD will reimburse Directors and Alternate Directors for reasonable food, accommodation, and travel expenses in accordance with the attached Schedule of Allowable Expenses.
- **4.2** Those <u>Directors</u> claiming expenses in accordance with this policy should be aware of the following general guidelines:
 - 4.2.1 The most economical mode of transportation is to be used, unless there is a specific reason to choose otherwise, e.g., (flying may be preferable to driving more than 3 hours, one way).
 - 4.2.2 The "per diem" rate may not be claimed when meals are provided as part of the registration for a conference, convention, meeting, or seminar.
 - 4.2.3 When some but not all meals are included, expenses may be claimed for the additional meal(s) when travelling. The amount payable for the additional meal(s) will be the actual cost of the meal, or the amount outlined in Section 11 of the attached Schedule of Allowable Expenses. If the actual expense is greater than the standard amount outlined in the attached Schedule of Allowable Expenses, the receipt must be attached to the claim.
 - 4.2.4 The "per diem" rate may be claimed for travel days when these involve being away from the officetravelling for more than half a day, subject to the above limitation.
- **4.3** Expense Report Forms submitted to the SCRD may be published quarterly, either on the SCRD's website or as part of a committee agenda.

5. EXCEPTIONS

- **5.1** Meal expenses incurred within the SCRD will not be covered under this policy.
- **5.1** Expenses incurred while engaged in Constituency business are exempt from this policy as they are covered under the Constituency Expenses policy.
- **5.2** Expenses submitted for reimbursement to any other organization or agency will not be reimbursed.

5.6. AUTHORITY TO ACT

- 5.1 Chief Administrative Officer (CAO)/Board Chair/Vice-Chair
- 6.1 To review and approve expense claims in a manner consistent with this policy and attached Schedule of Allowable Expenses. Chief Administrative Officer (CAO) and Board Chair



- 6.1.1 To review and approve Directors' expense claims with the Board Chair in a manner consistent with this policy and attached Schedule of Allowable Expenses prior to payment.
 - a) Board Chair expenses will be reviewed and approved by the CAO and Vice-Chair.
 - b) Expenses denied by the Board Chair or CAO may be approved through a vote of the Board at the request of the Director.
- **5.26.2** Directors and Alternate Directors
 - 5.2.16.2.1 To submit expense claims in a manner consistent with this policy using the Expense Report Form.
 - 5.2.26.2.2 The Expense Report Form is the only form used for claiming travel and related expenses. Expenses for more than one trip can be claimed on one form, but the claim must be approved and submitted to Accounts Payable within 60 days of the earliest expense incurred.
 - 5.2.36.2.3 Complete the Expense Report Form form under each heading and review for accuracy. Attach receipts, unless the "per diem" rate is being claimed (which does not require receipts). The "per diem" rate may not be claimed when meals are provided as part of the function and paid for as part of the registration.
 - 5.2.4 On completion, the form must be approved by the CAO and forwarded to Accounts Payable for processing.

6.7. REFERENCES (Bylaws, Procedures, Guiding documents)

- 7.1 BRD-0340-50-010 Constituency Expenses
- 7.2 Sunshine Coast Regional District Directors' Remuneration Bylaw No. 732, 2021
- 7.3 Expense Report form

Approval Date:	September 14, 2000	Resolution No.	409/00
Amendment Date:	October 14, 2021	Resolution No.	273/21
Amendment Date:	June 8, 2023	Resolution No.	141/23 Rec. No. 12
Amendment Date:	July 11, 2024	Resolution No.	209/24 Rec. No. 3
Amendment Date:		Resolution No.	



SCHEDULE OF ALLOWABLE EXPENSES

1.	Commercial accommodation	Actual cost	
2.	Non-commercial accommodation	\$35.00 per night	
3.	FCM Annual conference and accommodation (Chair, Electoral Area or Municipal Directors only)	Actual cost	
4 <u>3</u> .	UBCM Annual conference and accommodation (Chair, Electoral Area or Municipal Directors only)	Actual cost	
<u>54</u> .	AVICC conference and accommodation (Chair, Electoral Area or Municipal Directors only)	Actual cost	
<u>5</u> 6.	Course or conference registration fees	Actual cost	
7 <u>6</u> .	Required course material	Actual cost	
8 <u>7</u> .	Private Motor Vehicle use	Amount equal to Provincial reimbursement	
9 <u>8</u> .	Ferry transportation	Actual cost	
10 9.	Air transportation	Actual cost of regular	economy fare
<u>10</u>	Public Transit	Actual cost of fare or	monthly pass
<u>11</u>	Bicycle or e-bike	50% of the equivalence use rate	ent private motor vehicle
1 <mark>42</mark> .	Telephone-or facsimile charges	Actual cost	
1 <u>23</u> .	Meal charges including gratuities (no receipts required)	Breakfast Lunch Dinner	\$21.35 \$21.60 \$53.00
Grou 13 <u>4</u> .	Provincial and Federal taxes applicable to allowable expenses	Actual cost	
14 <u>5</u> .	Incidentals (drycleaning/laundry, photocopying/business related fees, porterage, internet fees.	<u>\$17.30</u>	\$ 17.30



(No receipts required, overnight travel only)

156. "Per Diem" rate \$113.25 per day (in lieu of meals charges) exclusive of accommodation

travel only)

167. Parking Actual cost

178. Taxis Actual cost

SUNSHINE COAST REGIONAL DISTRICT STAFF REPORT

TO: Committee of the Whole – January 23, 2025

AUTHOR: Valerie Cropp – Manager, Purchasing and Risk Management

SUBJECT: CONTRACTS BETWEEN \$50,000 AND \$100,000 FROM OCTOBER 1, 2024 TO

DECEMBER 31, 2024.

RECOMMENDATION(S)

THAT the report titled Contracts between \$50,000 and \$100,000 from October 1, 2024 to December 31, 2024, be received for information.

BACKGROUND

The Sunshine Coast Regional District's (SCRD) Delegation Bylaw No. 710 directs staff to provide the Committee with a quarterly report of all new contracts entered into that fall between \$50,000 and \$100,000.

This report includes vendor, purpose, function, amount and the authoritative budget.

DISCUSSION

A total of 110 contracts/purchase orders were issued during the time period October 1, 2024 to December 31, 2024, with 3 valued between \$50,000 and \$100,000.

Item No.	Supplier	Division	Amount	Expenditure	
1.	Western Scale Co Ltd. Truck Scale Replacement	352 / Sechelt Landfill	\$58,595.00	Capital	
2.	Alumichem Canada Inc. 370 / Regional Water Services \$64,000.00 Operating ISOPAC Water Treatment Chemicals				
3.	Subsurface Sales Ltd Pneumatic Boring Tool	370 / Regional Water Services	\$73,567.95	Capital	

STRATEGIC PLAN AND RELATED POLICIES

The disclosure of Contract Awards aligns with the Board's Procurement Policy and Delegation Bylaw.

CONCLUSION

SCRD Delegation Bylaw No. 710 requires that a report be provided quarterly to the Committee on contracts between \$50,000 and \$100,000.

Reviewed by:					
Manager		Finance			
GM		Legislative			
CAO	X - T. Perreault	Other			







SUNSHINE COAST REGIONAL ACCESSIBILITY ADVISORY COMMITTEE MEETING

December 9, 2024

RECOMMENDATIONS FROM THE SUNSHINE COAST REGIONAL ACCESSIBILITY ADVISORY COMMITTEE MEETING HELD AT THE GIBSONS AND AREA COMMUNITY CENTRE AT 700 PARK ROAD, GIBSONS, B.C. AND VIA ZOOM

PRESENT:

(Voting Members) Chair B. Conway

Committee members E. Eaton

L. Forrest R. Kiewitz A. Lattanzi B. Straw S. Tompkins

ALSO PRESENT:

(Non-Voting) Councillor, TOG D. Croal

Director, SCRD D. McMahon
Staff, DOS M. Stjepovic
Youth Representative M. Vanhoeven

SCRD, Corporate Officer
Staff, SCRD
R. Porte

Staff, TOG K. Thomas Recorder, SCRD K. Gower

REGRETS: Committee Member A. Gursche

Councillor, DOS D. Inkster

CALL TO ORDER Chair Conway called the meeting to order at 11:10 am

AGENDA The agenda was adopted as amended.

MINUTES

The Sunshine Coast Regional Accessibility Advisory Committee (SCRAAC) minutes of October 21, 2024 were accepted as presented.

REPORTS

Where are we in the process - Update

- Environmental Scans were conducted in all three local governments
- Committee members should continue to send barriers & opportunities to legislative@scrd.ca
- Selection of a consultant is in progress, still to be determined whether Sechelt or Gibsons will administer the grant funds on behalf of the committee
- Ongoing feedback program "Let's Talk" page to be initiated

Environmental Scan

Each local government provided an update on the results of the environmental scan conducted within their respective local government.

Marina Stjepovic, Staff, District of Sechelt, highlighted the following:

 Office accessibility is a challenge, including the elevator, telephone system and access to different facilities

Rebecca Porte, Staff, Sunshine Coast Regional District highlighted the following:

- No specific standard for accessibility was identified
- Positive changes included options for residents to pay bills, attend meetings, or get information remotely or online
- Transportation was an issue of note in particular, the demand for handyDart service exceeds the existing level of service available

Katie Thomas, staff, Town of Gibsons, highlighted the following:

- The Town of Gibsons building is not accessible and requires a building audit
- The Town's Parks masterplan is being reviewed with an aim to developing one or two accessible trails from lower to upper Gibsons

Chair Conway addressed the committee highlighting the need to focus on prioritization of the opportunities and barriers as the committee's work continues.

Working Groups

- The Transportation working group meetings took place on November 18 and December 4, 2024
- The working group would like to see a member of SCRAAC participate on the new BC Ferries Advisory Committee
- In addition to advocacy, the Committee would like to actually work with BC Ferries and BC Transit to ensure support for accessibility improvements

Accessibility Barriers and Opportunities on the Sunshine Coast

- Committee members were encouraged to continue identifying opportunities and barriers to add to the tracking spreadsheet
- Creating the priorities list of opportunities and barriers will be ongoing and can be added to once engagement with the public begins

Consultant Update

- A list of consultants through the Disability Alliance has been made available
- Decision needs to be made amongst staff which local government will administer the grant and then interviews with consultants will follow
- The aim is to have a consultant in place before the next Committee meeting

Update on Let's Talk Page

The committee discussed the following with respect to public engagement:

- Consultants may have advice on how best to engage public and when an online public engagement page will be developed on the SCRD's Let's Talk website that will provide a place where the public can submit feedback, ask questions, and get information including background, goals, key milestones, and document links related to the work on the Regional Accessibility Plan
- The Let's Talk page will be developed once a consultant has been selected
- Other methods of public information and engagement will also be contemplated

- Informing the community, especially those with accessibility issues, of the committee's work to create a Regional Plan is an important priority
- A letter or article submitted to the Coast Reporter newspaper was suggested

COMMUNICATIONS

 Correspondence from Kate Turner, Assistant to the Director of Instruction for Inclusive Education, School District 46, regarding School District 46 Accessibility Planning, was received for information

NEW BUSINESS

• Terms of Reference and Appointment of Committee Members

The SCRD Corporate Officer addressed the committee regarding a proposed amendment to extend committee appointments to two years. Committee members present at the meeting were supportive of their terms being extended.

Next Meeting

• District of Sechelt to host next meeting. Date to be confirmed.

ADJOURNMENT

The meeting was adjourned at 12:55 pm

SUNSHINE COAST REGIONAL DISTRICT

PORTS MONITORS (POMO) COMMITTEE

December 10, 2024

MEETING NOTES OF THE PORTS MONITORS (POMO) COMMITTEE HELD IN THE CEDAR ROOM AT THE SUNSHINE COAST REGIONAL DISTRICT OFFICE AT 1975 FIELD ROAD, SECHELT, BC

PRESENT:	POMO Committee Member (Eastbourne) Trish Cowley
----------	-------------------------	------------	----------------

POMO Committee Member (Halfmoon Bay)

POMO Committee Member (Halkett Bay)

POMO Committee Member (Hopkins Landing)

POMO Committee Member (West Bay)

Rod Smith

Rob Cocquyt

John Rogers

POMO Committee Member (West Bay)

Eric Berger

ALSO PRESENT: SCRD Director, Electoral Area F K. Stamford (Liaison)

SCRD GM, Community Services S. Gagnon SCRD Administrative Assistant/Recorder A. Adam

Public 0

REGRETS: POMO Committee Member (Gambier Harbour) Bruce Pollock (Chair)

POMO Committee Member (Keats Landing)

POMO Committee Member (Port Graves)

John Richardson

Andrew Kennedy

SCRD Director, Electoral Area B J. Gabias (Alt. Liaison)

CALL TO ORDER 1:02 p.m.

Given the Chairs absence, the group agreed that Shelley Gagnon, General Manager, Community Services, would Chair for the December 10, 2024 Ports Monitors Committee meeting.

ACKNOWLEDGMENT

It was acknowledged that the Ports Monitors (POMO) Committee meeting was held within the traditional territory of the shíshálh and Skwxwú7mesh Nations.

WELCOME AND INTRODUCTIONS

Roundtable introductions of Ports Monitors (POMO) Committee members, Elected Official Liaisons, and SCRD staff members in attendance.

AGENDA

The agenda was adopted as presented.

MEETING NOTES

The Ports Monitors (POMO) Committee Meeting Notes of May 27, 2024 were received and accepted as presented.

PORTS DIVISION UPDATE

The General Manager, Community Services reviewed the staff report included in the meeting agenda package as Annex B and provided an update on the status of the vacant Ports Coordinator position.

Discussion included:

- Hopkins dock construction (like for like) was awarded on November 28. Updates will be provided on the Let's Talk Page.
- Fall 2024 maintenance and repairs requiring timber are delayed until 2025.
- Capital projects at Keats Landing, Eastbourne, Gambier Harbour, West Bay, and Halkett Bay will resume when staff are in place.

PORTS MONITORS COMMITTEE MEMBERSHIP UPDATE

Two POMO members (Trish Cowley and Rob Cocquyt) terms expire before the next meeting. Both members agreed to allow their names to stand for another term.

Staff will bring a report to the Board for re-appointment of Trish Cowley and Rob Cocquyt to the POMO Committee for an additional two-year term.

ROUNDTABLE

Kate-Lousie Stamford, SCRD Director, Electoral Area F

- Has been working with BC Ferries on tire replacement at the Langdale Float.
- SCRD is looking for photos of the upcoming King Tides.
- Surveyed Gambier Harbour POMO Representatives on the recent Sea Lion population re damage to private docks in the area.

Rod Smith, POMO Committee Member (Halfmoon Bay)

 Noted the small items to be repaired as part of preventative maintenance and recommended repairs but no other concerns. Trish Cowley, POMO Committee Member (Eastbourne)

- Appreciative when the crews are on site to fix things after the storm damage and for the light repairs.
- The best swim ladder has been installed at Eastbourne.
- Keats Landing Community is still upset about the vehicular restrictions on the dock but have found new ways to make things work.

Eric Berger, POMO Committee Member (West Bay)

- Aware of the delay for the float repair.
- Happy to see crews out several times this year for maintenance work.

John Rogers, POMO Committee Member (Hopkins Landing)

Mooring blocks – will these need to be moved in preparation for construction?

The SCRD Ports Division reported that more information on the construction project will be soon and will be shared on the Let's Talk page. If the mooring blocks will impact construction, the project manager will be in touch with the POMO representative to help inform the community.

Rob Cocquyt, POMO Committee Member (Halkett Bay)

- The rub rail that is missing is tucked behind the shed.
- Wear guards between dolphins and float- one has come off recently and one is off.
- Placement for the new ladder was discussed.

The SCRD Ports Division will ensure this information is provided to the contractor.

NEXT MEETING May 2025

ADJOURNMENT 1:35 p.m.