



East Hants Servicing Capacity Study

Technical Memorandum #1: Sanitary Sewer Pump Stations Assessment & Conditions Summary

Final

Prepared for:
Municipality of East Hants



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1.0 INTRODUCTION

1.1 Background

The Municipality of East Hants owns and maintains a Regional sanitary sewer system to provide wastewater collection services to residents and businesses within Enfield, Elmsdale, Lantz and Shubenacadie. The Municipality had an infrastructure capacity study completed in 1998 to define estimated costs of current and future water and wastewater needs for the service area. As the timeline for the previous study ends, East Hants is planning for the next 25 years of water, wastewater and stormwater infrastructure replacement and upgrades to ensure services are continued to be provided and infrastructure is sustainable for their planned population growth.

To understand the current condition of sanitary sewer pump station assets and what will be required into the future, the Municipality retained the services of R.V. Anderson Associates Limited (RVA) to conduct the overall servicing capacity Study which includes a comprehensive assessment of its sanitary sewer system infrastructure with recommendations for improvements to sustain the infrastructure to 2047. The following sections identify the steps taken to develop this technical memorandum on the Sanitary Lift Stations (SLS).

2.0 CONDITION SUMMARY

This section describes the methodologies used to evaluate and rate the condition of the twenty-eight (28) sanitary lift stations.

2.1 Condition Rating Framework

The condition rating of each asset represents the current state of physical repair and is often used as an indicator for the relative time until corrective action (rehabilitation or replacement) is required. Lift stations are recommended to be designed for 40 years with equipment replacement in 20 years by the US Army Corp of Engineers. The table below identifies a rating, a description of the condition attached to the rating and what is the expected life of the asset when given a rating. Descriptions of each condition rating (from 1 to 5) and expected service life are provided in Table 2.1 below.

Condition Rating	Physical Condition	Expected Service Life
1 - Very Good	Excellent working condition. No signs of deterioration.	Like new.
2 – Good	Minor signs of deterioration.	At or beyond mid-stage of life.
3 – Fair	Some elements exhibiting major deficiencies.	Approaching end of life.
4 - Poor	Significant deterioration with localized areas of failure.	Needs to be replaced/ repaired in the short-term.
5 - Very Poor	Asset is beyond repair and, generally, has completely failed.	Needs to be replaced/ repaired immediately.
0 - Unknown	Insufficient information exists to estimate asset condition.	

Figure 1: Condition Rating Matrix

RVA has referenced condition rating systems as identified by NS Municipal Affairs as well as methods utilized in the industry when assessing municipal linear infrastructure including pump stations.

2.2 Lift Stations Investigation - Methodology

2.2.1 Background Mapping Development

When developing a method to efficiently inspect all lift stations, RVA gained access to the GIS files provided by the Municipality of East Hants to create the most effective and efficient method and lift stations to inspect.

Using the GIS files, RVA developed a map showing the locations of every lift station throughout the municipality and used this information to develop the best strategy for inspecting the lift stations in an efficient matter. Using this background mapping, RVA was able travel between each lift station knowing the approximate location of the lift station.

2.2.2 Existing Database Review

Initial stages of the project consisted of a project kick off meeting, strategy development, submitting requests for information, etc. An integral part in the success of this project is for the Municipality of East Hants to provide important information that RVA can use to develop plans for field work, and other information for modelling and study purposes.

Prior to commencing field inspections for the condition assessment of all lift stations, RVA needed to gather as much information as possible to understand the sanitary lift station system to efficiently complete the field inspections. A Request for Information was submitted to the municipality and the response provided plenty of useful information for RVA to develop a strategy to use in the field.

The municipality provided GIS information with background mapping which helped RVA know the approximate location of each lift station and avoid losing time in the field by trying to find them. A Lift Station Asset Management Program report (2021) was provided to give RVA as much information as possible on each lift station to consider when giving a condition rating. The municipality also provided a spreadsheet listing all lift stations throughout the municipality. This spreadsheet contained pump information, maintenance dates, SCADA information and comments from East Hants staff about ongoing issues, recent upgrades, or upcoming maintenance.

Part of the field inspection process was to analyze key elements of each lift station (wet-well structure, instrumentation and controls, pumps, etc.). When developing a condition rating, the age and usage of certain elements such as pumps, was taken into consideration to understand if they were at or nearing the end of their operating life, if they should be considered for a performance review, and if they can withstand the projected population growth for the next 25 years. Using the information provided by the municipality, RVA was able to determine the age of the pumps and lift stations.

2.2.3 Field Inspection Technology

When developing a strategy to efficiently complete the lift station inspections, RVA determined the most efficient way would be to generate a live digital report which could be populated in the field at the time of each inspection. RVA personnel carried an iPad which was easily used to check boxes on the form as well as to quickly type any comments on deficiencies or other comments related to the existing station. Adapting this green and modern technology eliminated the need for scanning and generating reports from the field notes. This technology also allowed RVA to take photos of all elements of the lift station to illustrate the actual conditions.

2.2.4 Communications With the Municipality of East Hants

RVA has been in constant communication with the municipality on multiple occasions whether it be for information requests, notify them of upcoming field work, or meeting them in the field to guide us around.

When scheduling a time for lift station inspections, RVA contacted the municipality for the availability of an operator to accompany RVA during the inspections. The operator would open the panel enclosure, wet-well and valve chamber for RVA to inspect inside. The operator also activated the pumps for each lift station for RVA to monitor the operation of the pump and take any notes on deficiencies which may have been found.

While having an operator from the municipality was needed in order to complete the inspections, it was also very informational. At any lift station where the operator knew of a recurring issue, they would inform RVA, and the issue was taken into consideration in the overall condition rating. Communication between RVA and the municipality along with the knowledge of the operators who work with the operation and maintenance of the lift stations every day has been vital in the success of the project thus far.

2.2.5 Field Investigations

On September 1st and September 8th, 2022, RVA conducted a site visit of each lift station to visually evaluate the condition of the station elements and perform a pump draw down assessment to evaluate pump performance. The condition of each lift station component was evaluated using the established standardized condition rating matrix, with various distresses observed depending on the component type. The standardized condition rating matrices used for each component are presented in Appendix A.

A component of the assessment of each lift station was to inspect and analyze multiple elements of the station. Although some lift stations were built or installed differently than others in the system, RVA assessed every one of the following elements on each lift station (if applicable) to ensure the accuracy of this assessment.

Elements that were reviewed include:

- Structural pedestals
- Control panel and power meter enclosures(s)
- SCADA mast condition (if applicable)
- Exterior condition of concrete wet-well and valve chamber
- Hatch condition. Noted if safety grating was installed.

- Interior wet-well structural condition.
- Operating condition of chains, floats, guide rails
- Activated pumps for approximately 30 seconds to listen for any issues

When assessing these elements, RVA would identify any structural or mechanical defects as well as issues that would be unsafe, have an influence on the operation of the lift station, or disrupt the sanitary system.

When inspecting each lift station, RVA was accompanied by an operator from the municipality to gain access to the wet-well, valve chamber and control panel to inspect inside. The operator was also relied upon to activate both pumps, one at a time, to monitor the drawdown of each pump and to listen for any unusual noise or vibration coming from each pump. Each pump was activated for a minimum of thirty seconds to listen to start-up and running as well as monitor the evidence of drawdown.

Part of the inspection process was taking photos of each lift station to keep an inventory of all deficiencies and issues we identified in the field, as well as pictures to include in the inspection reports for each lift station. Photos that were taken include:

- Overall view of the lift station site
- Concrete pedestal
- Control panel and power meter enclosure(s)
- Pump tags (if available) to identify specifications of pumps being used
- Inside of concrete wet-well and valve chamber, including guide rails, chains, and floats

2.2.6 Lift Station Inspections

The following provides a detailed overview of findings at each of the twenty-eight lift stations. LS refers to Lift Station.

LS #1 – Peter Horne – 102 Highway 2

Overall, the station is in fair condition. The power meter box is rusty and in poor condition. Some bricks have come loose on the brick pedestal which supports the electrical and control panel. The galvanized SCADA mast is attached to some of these loose bricks. The access hatch cover is rusty with a broken handle and does not have safety grating installed. The wet-well chamber is located next to road with good vehicle access however, the control panel is not accessible by vehicle. The concrete wet-well is in good condition. The guide rails, floats and chains are all in good condition. The wet-well is clean with no grease build up or debris. All the piping inside of the wet-well chamber is in good condition. There was no sign of inflow and infiltration inside of the wet-well at the time of inspection. A Surfline control panel is used to control the pumps. The exterior of the control panel has little rust and is in good condition. The interior of the control panel is clean with no debris. There are no conduit seals installed on the conduit.



Both pumps were replaced with new pumps in 2021.

Preliminary recommendations for LS #1 include:

-
- Installation of explosion proofing fittings should be considered.
- Repair brick pedestal for SCADA mast.
Repair handle on hatch cover.

LS #2 – Sherwood Park – 32 Sherwood Drive

Overall, the station is in very good condition. The concrete pedestal is in excellent condition. The hatch cover and exterior of the wet-well chamber have no damage and are in excellent condition. The valve chamber is filled to the top of pipe with water but is otherwise in good condition. Inside of the wet-well is clean with no excess grease or debris build up. The guide rails, floats and chains are in good condition. The hooks for the chains are corroded. There is an unusual noise coming from the wet-well, but the source of the noise is unknown. There was no sign of inflow and infiltration in the wet-well at the time of inspection. The stainless-steel panel box is in good condition. A Cutting EDGE CE8300 control panel controls the pumps for the lift station. The galvanized SCADA mast is secured to the concrete pedestal. The conduit has conduit seals installed. Residents near the lift station had been reporting an odour coming from the station when the ventilation fan was running. The ventilation fan has been turned off, but the odour still exists. All the piping inside of the wet-well chamber and valve chamber is in good condition. Lifting davit plate is a tripping hazard.



Pumps #1 & #2 are 5 hp and were installed in 2017.

At the time of inspection there was a known fault with Pump #2 which didn't allow it to run. No issues noted from Pump #1.

▣ Preliminary recommendations for LS #2 include:

-
- Investigate issue with Pump #2.
- Mark lifting davit socket as it is a tripping hazard.
- Replace corroded hooks for chains.
- Remove water from valve chamber and investigate cause of infiltration. Investigate issue for where the water is coming from.
- Investigate the cause of noise coming from wet well and repair.
- Investigate root cause of odour issue.

LS #3 – Horne Settlement – 20 Old Horne Settlement Road

Overall, the station is in good condition. The hatch cover for the wet-well is rusty and has a broken hinge and there is no safety grating installed. The power meter box is rusty, and the bottom is frail. The brick pedestal has some brick-and-mortar damage. Inside of the wet-well shows signs of separation between the joints of the walls. The wet-well is clean with no excess grease or debris build up. The floats, guide rails and chains are all in good condition. There was no sign of inflow and infiltration at the time of inspection. The stainless-steel panel box has no damage or rust on the exterior, no debris build up inside and is in good condition. A Surfline control panel controls the pumps for the station. The power meter and disconnect enclosure is rusting and exhibiting age and wear. The galvanized SCADA mast is attached to the brick pedestal. There are no conduit seals installed on the conduit. Piping inside the wet-well is in good condition with one section of pipe being a brand-new replacement.



Pumps #1 & #2 are 5 hp. Pump #1 installed in 1996, Pump #2 installed in 2022.

Pump #1 noisy when running.

Preliminary recommendations for LS #3 include:

- Installation of explosion proofing fittings should be considered.
- Investigate noise from Pump #1.
- Contact Nova Scotia Power about a meter box replacement.
- Monitor separation between wall joints. Grout if any inflow and infiltration begin to occur.
Repair brick pedestal.

LS #4 – Donaldson Avenue – 21 Donaldson Avenue

Overall, the station is in very good condition. There is some minor damage on the edges of the concrete for the wet-well and valve chamber. The concrete pedestal is in great condition. There are concrete bollards placed around the area to protect from vehicles. The wet-well has some grease build up at the operating surface. The floats, guide rails and chains are all in good condition. There was no sign of inflow and infiltration at the time of inspection. The stainless-steel panel box has no damage or rust on the exterior, no debris build up inside and is in good condition. The panel box for the power meter has no damage or rust on the exterior however, a wasp nest was present inside. A Flygt control panel controls the pumps for the station. During the time of inspection, hornets were present within the smaller electrical control panel. The galvanized SCADA mast is attached to the concrete pedestal. There are conduit seals installed on the conduit. Piping inside the wet-well is in good condition with some debris build up. Valve chamber piping have flow meters attached and in good condition.



Pumps #1 and #2 are 30 hp and were installed in 2008. At the time of inspection, the check valve was closed on Pump #2 which caused a “hammer” noise when Pump #2 was running.

Preliminary recommendations for LS #4 include:

- Monitor grease build up in wet-well. Clean wet-well if required.
- Investigate “hammering” noise from check valve.

LS #5 – Locks Road – 6A Locks Road

Overall, the station is in good condition. The top of the wet-well is approximately 300mm above grade. The exterior concrete is in good condition. The hatch cover is in good condition with some light surface rust on the edge of the door and the bolts. There is no safety grating installed. The inside of the wet-well is in good condition with no excess grease or debris build up. The floats, guide rails and chains are all in good condition. There was no sign of inflow and infiltration at the time of inspection. The stainless-steel panel box has no damage, but a small amount of rust can be seen on the exterior. There is no debris build up inside and is in good condition. A Surfline control panel controls the pumps for the station. The panel box is attached to two brackets which are



secured to two gooseneck ventilation pipes exiting the wet-well. The galvanized SCADA mast is also attached to the ventilation pipe. There are no conduit seals installed on the conduit. Piping inside the wet-well is in good condition.

Pumps #1 and #2 are 5 hp Pump #1 was installed in 2008 and Pump #2 was installed in 2017.

Preliminary recommendations for LS #5 include:

- Installation of explosion proofing fittings should be considered.

LS #7 – Curley Portables – 453A Highway 2

Overall, the station is in good condition. The exterior concrete of the wet-well is aged but in good condition. The hatch covers are in good condition. There is no safety grating installed. The inside of the wet-well is in good condition with a small amount of grease and debris build up along the walls, pipe, and guide rails. The floats, guide rails and chains are all in good condition. There was no sign of inflow and infiltration at the time of inspection. The stainless-steel panel box is located inside of the building and is in good condition. The building is also in good condition. The roof, foundation, siding, walls, and doors are all in good condition. The building is heated in the winter but the fan to allow heat to escape in the warmer months does not work. A Surfline control panel controls the pumps for the station. The galvanized SCADA mast is secured to the building. There are no conduit seals installed on the conduit. Piping inside the wet-well is in good condition. There is a small amount of surface rust on the piping. Piping in valve chamber is rusty and corroded. The valve chamber has water from the bottom of the chamber to the invert of the pipe. Valves are corroded.



Pumps #1 and #2 are 85 hp Pump #1 was installed in 2016 and Pump #2 was installed in 2019.

Preliminary recommendations for LS #7 include:

- Repair fan in building to prevent controls and other instruments from overheating.
- Repair or replace valves and piping in valve chamber.
- Clean wet-well chamber.
- Installation of explosion proofing fittings should be considered.

LS #8 – Mill (Elmsdale Lumber) – 595 Highway 2

Overall, the station is in good condition. The top of both the concrete wet-well and valve chamber are approximately 800mm above grade and approximately 6m from the roadway. Both structures have minor cracking on the exterior but are in good condition. The hatch covers are in good condition. There is no safety grating installed. The inside of the wet-well is in good condition with a small amount of grease and debris on the floats.



The guide rails and chains have some corrosion but are all in good condition. There was no sign of inflow and infiltration at the time of inspection. The stainless-steel panel box has no rust or damage and is in good condition. Inside of the panel box is free of debris and the fans are working. A Surfline control panel controls the pumps for the station. The galvanized SCADA mast is secured to the utility pole. The brick pedestal is in good condition, but the high-level alarm light is leaning. There are no conduit seals installed on the conduit. Piping inside the wet-well and valve chamber are in good condition with a small amount of rust.

Pump #1 is a 70 hp pump and was installed in 2011. Pump #2 is a 47 hp pump and was installed in 1989. Both pumps start and run quietly but make a noise when shutting down.

Preliminary recommendations for LS #8 include:

- Monitor cracking on outside of chambers.
- Investigate noise from pumps when shutting down. Perform maintenance on pumps.
- Performance review for Pump #2 due to age.
- Installation of explosion proofing fittings should be considered.

LS #9 – Elmsdale Fire Hall – 730 Highway 2

Overall, the station is in good condition. The wet-well chamber is built in the boulevard between the road and the sidewalk. The hatch cover is difficult to open due to damage from getting struck by plows and other vehicles. There is no safety grating installed. The inside of the wet-well is in good condition with some grease build up at the high-level surface. New floats installed. The guide rails and chains all in good condition. There was no sign of inflow and infiltration at the time of inspection. The stainless-steel panel box has no rust or damage and is in good condition. Inside of the



panel box has some accumulation of debris. A Surfline control panel controls the pumps for the station. The galvanized SCADA mast is secured to the utility pole. The brick pedestal has some loose bricks and is leaning to the west. The PVC ventilation pipe attached to the pedestal has the top of the gooseneck disconnected. There are no conduit seals installed on the conduit. Wet-well piping in good condition. At the time of inspection, the valve chamber was buried and unable to be inspected.

Both Pump #1 and Pump #2 were installed in 2015. Pump #2 is a 20 hp pump. No information available for Pump #1.

Preliminary recommendations for LS #9 include:

- Repair or replace wet-well hatch cover. If possible, relocate wet-well to inside of sidewalk.
- Repair or replace brick pedestal. Repair ventilation pipe.
- Expose valve chamber for future maintenance and studies.
- Installation of explosion proofing fittings should be considered.

LS #10 – Medical Centre – 104 Elmsdale Road (HWY 214)

Overall, the station is in good condition. The wet-well chamber is located approximately 1m from roadway. The wet-well is prone to snow and the hatch has been ripped off by passing snowplows in the past. The security bar on the hatch has rusted off from the bolt. There is no safety grating installed. The inside of the wet-well is in good condition with a small amount of grease or debris build up on the sidewalls. The floats are in good condition. The guide rails and chains all in good condition with a small amount of surface rust at the high-water level. There was no sign of inflow and infiltration at the time of inspection. The stainless-steel panel box has no rust or damage and is in good condition. Inside of the panel box has some debris but is in good condition. A Surfline control panel controls the pumps for the station. The galvanized SCADA mast is secured to the brick pedestal. The pedestal has some loose bricks and missing mortar. There are no conduit seals installed on the conduit. Wet-well piping in good condition. Piping leads to valve chamber across the road. Chamber was buried and unable to be inspected.



Pump #2 installed in 2009. Installation year for Pump #1 was unknown at the time of inspection and not available through background documents. Both pumps are 20 hp

Pump #2 has some minor noise while running but operates without any issues.

Preliminary recommendations for LS #10 include:

- Repair or replace hatch cover.
- Installation of explosion proofing fittings should be considered.
- Repair brick pedestal.
- Investigate noise from Pump #2.
- Expose valve chamber for future maintenance and studies.

LS #10A – Pine Grove – 81 Pinehill Drive

Overall, the station is in good condition. This lift station is an older lift station. The exterior concrete of the wet-well is in good condition. The structure of the lift station including panel box, ventilation pipes and lifting davit, are all in good condition. The top of the wet-well is approximately 600mm above grade. There is no safety grating installed. The inside of the wet-well is in good condition with no excess grease or debris build up. The guide rails, floats, and chains are all in good condition. There was no sign of inflow and infiltration at the time of inspection. The stainless-steel panel box has a small amount of rust on the lock and around the door but is in good condition. Inside of the panel box is clean and there is no sign of any rust. A Flygt control panel controls the pumps for the station. A new adapter has been installed to plug into a generator for backup power. The panel box is attached to two steel brackets that are secured to two gooseneck ventilation pipes exiting the wet-well chamber. This lift station does not have SCADA installed. There are no conduit seals installed on the conduit. Wet-well piping is in good condition. The valve is inoperable due to location.



Pump #1 installed in 2018. Pump #2 installed in 2019. Both pumps are 3.9 hp pumps.

Pump #2 had a delay starting. Otherwise, no issues or concerns while running.

Preliminary recommendations for LS #10A include:

- Upgrade to SCADA.
- Installation of explosion proofing fittings should be considered.
- Relocate valve.
- Investigate delay in Pump #2.

LS #11 – Old Elmsdale School – 235 Elmsdale Road (HWY 214)

Overall, the station is in a fair condition. The wet-well access for this lift station is built into the roadway. The hatch cover for the wet-well is partially into the lane of the road and partially covered in gravel. Without traffic control and an excavator, the wet-well was unable to be accessed. The operator stated the wet-well is cleaned using a vacuum truck every 18-24 months. The valve chamber is next to the shoulder and in good condition. Due to this location, the chamber is prone to snow and run-off from the roadway. The structure of the lift station including panel box, ventilation pipes are all in good condition. The stainless-steel panel box is in good condition. Inside of the panel box the fan to remove heat is not working. A Surfline control panel controls the pumps for the station. The screen on the controller is blacked out and unable to read, possibly from overheating. The panel box is attached to a brick pedestal. The pedestal has some brick and mortar missing but is in good condition. SCADA mast is attached to a nearby utility pole. There are no conduit seals installed on the conduit. Piping in the valve chamber has some rust but is in good condition. There is a small amount of water at the bottom of the chamber. Mud is seeping through the risers of the chamber.



Both pumps are 10 hp and were installed in 2016.

Preliminary recommendations for LS #11 include:

- Installation of explosion proofing fittings should be considered.
- Relocate wet-well from lane of roadway.
- Repair brick pedestal, re-point mortar.
- Repair heat issue in panel box.
- Investigate and repair mud seeping into chamber.

LS #11A – Industrial Park – 12 Industrial Way

Overall, the station is in good condition. The exterior concrete of the wet-well, valve chamber, and concrete pedestal is in good condition. Attached to the concrete pedestal is the tie-in to the underground power. The conduit is not directly connected to the control panel and is prone to being vandalized. Inside of the valve chamber, the styrofoam lining is falling off with pieces of foam floating in the 600mm of water in the bottom of the chamber. The hatch cover to the wet-well is in good condition but does have a broken hinge. There is no safety grating installed. The inside of the wet-well is in good condition with no excess grease or debris build up. The guide rails, floats, and chains are all in good condition. This lift station tends to see higher flow rates due to the nearby brewery being tied in and the community pool drains here when undergoing a back wash. There was no sign of inflow and infiltration at the time of inspection. The stainless-steel panel box for the control panel has no rust but is dented on the outside. The power meter box is in fair condition but is rusty on the outside. The inside of both panel boxes are clean and there is no sign of any rust. A Surflite control panel controls the pumps for the station. The panel boxes are attached to a concrete pedestal. The pedestal is in good condition. The SCADA mast is attached to the nearby utility pole. There are no conduit seals installed on the conduit and there is no seal around the existing fittings. Wet-well piping in good condition however, the check valve is leaking when pumps are running. According to the operator, even with the major leak in the check valve, the lift station can still handle the heavy flow.



Pump #1 is a 14.8 hp pump. The installation year is unknown. Pump #2 was installed in 2015 and us a 15 hp pump.

Pump #2 has a vibration and rattling noise when running.

Preliminary recommendations for LS #11A include:

- Investigate cause of leak in check valve.
- Investigate vibration and noise. Perform maintenance on Pump #2.
- Installation of explosion proofing fittings should be considered.
- Investigate source for water in valve chamber.
- Remove and replace styrofoam in valve chamber that is no longer attached to sidewalls.

LS #11B – Carmies Daycare – 416 Elmsdale Road (HWY 214)

Overall, the station is in good condition. The exterior concrete of the wet-well, valve chamber, and concrete pedestal is in good condition. The hatch cover to the wet-well is in good condition. There is safety grating installed. The lid on the valve chamber is rusty but in good condition. The valve chamber lid is bolted. At the time of inspection, the operator didn't have the proper tools to open the valve chamber, therefore, no condition assessment was completed on the inside of the valve chamber. The inside of the wet-well is in good condition with no excess grease or debris build up. The guide rails, floats, and chains are all in good condition. There is no sign of inflow and infiltration. The stainless-steel panel box for the control panel is in very condition with no rust or damage. The inside of the panel box is clean and there is no sign of any rust. A Surfline control panel controls the pumps for the station. The panel box is attached to a concrete pedestal. The pedestal is in very good condition. The SCADA mast is attached to the pedestal. There are EYS fittings installed on the conduit. Wet-well piping is rusty but in good condition.



Both Pump #1 and Pump #2 are 7.5 hp pumps and were installed in 2015.

Pump #2 had a loud rattling sound when running and a vibration could be felt.

Preliminary recommendations for LS #11B include:

- Investigate vibration and noise. Perform maintenance on Pump #2.

LS #11C – Park Road Extension – 279 Park Road

Overall, the station is in very good condition. The exterior concrete of the wet-well, valve chamber, and concrete pedestal is in good condition. The hatch cover to the wet-well is in good condition. There is safety grating installed. The lid on the valve chamber is in good condition. There is a small amount of water in the valve chamber however the lid and risers are sealed. The inside of the wet-well is in good condition with no excess grease or debris build up. The guide rails have a small amount of rust at the operating surface. The floats and chains are in good condition.



There was no sign of inflow and infiltration at the time of inspection. The stainless-steel panel box for

the control panel is in very good condition with no rust or damage. The inside of the panel box is clean and there is no sign of any rust. A Panel Shop control panel controls the pumps for the station. The panel box is attached to a concrete pedestal. The pedestal is in very good condition. The SCADA mast is attached to the pedestal. There are EYS fittings installed on the conduit. Wet-well piping is in good condition with a small amount of rust. The valves and piping in the valve chamber are in very good condition.

Both Pump #1 and Pump #2 are 10 hp pumps and were installed in 2013.

Preliminary recommendations for LS #11C include:

- Investigate and monitor source for water in valve chamber.

LS #12 – Elmsdale Legion – 849 Highway 2

Overall, the station is in good condition. This lift station is located to the side and at a lower elevation than the road, next to a concrete retaining wall. This location makes the lift station prone to snow being pushed off the road by a snowplow. The exterior concrete of the wet-well is in good condition. The hatch cover to the wet-well is in good condition. There is no safety grating installed. The lid on the valve chamber is in good condition. The inside of the wet-well is in good condition but does show signs of inflow and infiltration from the top of the chamber. There is a small amount of grease build up at the operating surface and on the floats. The guide rails have a small amount of rust at the operating surface. The chains are in good condition. The stainless-steel panel box for the control panel is in good condition with little rust and damage. The inside of the panel box is clean and there is no sign of any rust. A Surflin control panel controls the pumps for the station. The panel box is attached to a brick pedestal which is leaning. The pedestal is in good condition. The SCADA mast is attached to the pedestal. There are no conduit seals installed on the conduit. Wet-well piping is in good condition with a small amount of rust and grease build up. The valves and piping in the valve chamber are rusty and corroded.



Both Pump #1 and Pump #2 are 7.5 hp pumps and were installed in 2021.

Preliminary recommendations for LS #12 include:

- Monitor inflow and infiltration.

- Clean wet-well chamber.
- Repair brick pedestal.
- Installation of explosion proofing fittings should be considered.
- Repair or replace valves and piping in valve chamber.
- Relocate lift station to area where it will not be prone to snow from roadway.

LS #13 – Lantz Cemetery – 984 Highway 2

Overall, the station is in good condition. This lift station is located along the sidewalk with part of the wet-well protruding into the sidewalk. The exterior concrete of the wet-well is in good condition. The hatch cover to the wet-well is in good condition. There is no safety grating installed. The inside of the wet-well is in good condition. There is a small amount of debris along the sidewalls at the operating surface. The guide rails, chains, and floats are all in good condition. There was no sign of inflow or infiltration at the time of inspection. The stainless-steel panel box for the control panel is in good condition with a little rust and damage. The inside of the panel box is clean and there is no sign of any rust. A Surfline control panel controls the pumps for the station. The panel box is attached to a brick pedestal. The pedestal is in good condition but does have some damaged bricks. The SCADA mast is attached to a nearby utility pole. There are no conduit seals installed on the conduit. Wet-well piping is rusty, corroded and in fair condition.



Pump #1 was installed in 1989. Installation date for Pump #2 was unknown at the time of inspection. Both Pump #1 and Pump #2 are 15 hp

Preliminary recommendations for LS #13 include:

- Repair brick pedestal.
- Installation of explosion proofing fittings should be considered.
- Repair or replace piping in wet-well.
- Performance review on Pump #1 due to age.

LS #14 – Sportsplex – 1070 Highway 2

Overall, the station is in good condition. This lift station is located along the sidewalk with the wet-well protruding into the sidewalk. The exterior concrete of the wet-well is in good condition. The hatch cover to the wet-well is in good condition and located in the sidewalk. There is no safety grating installed. The inside of the wet-well is in good condition. There is some small cracking along the wall joints of the wet-well. There is no excess grease or debris build up. The guide rails, chains, and floats are all in good condition. There was no sign of inflow or infiltration at the time of inspection. The stainless-steel panel box for the control panel is in good condition with a little rust and damage. The inside of the panel box is clean and there is no sign of any rust. A Surfline control panel controls the pumps for the station. The panel box is attached to a brick pedestal. The pedestal is in good condition with some minor damage. The SCADA mast is attached to the pedestal. There are no conduit seals installed on the conduit. Wet-well piping has some rust but is in good condition. There is some debris build up on the piping. The valve chamber piping and valves are rusty with some corrosion.



Pump #1 was installed in 1990. Pump #2 was installed in 2020. Both Pump #1 and Pump #2 are 35 hp

Preliminary recommendations for LS #14 include:

- Installation of explosion proofing fittings should be considered.
- Performance review on Pump #1 due to age.

LS #15 – Poplar Drive – 50A Poplar Drive

Overall, the station is in good condition. The exterior concrete of the wet-well is in good condition. The hatch cover to the wet-well is in good condition with no rust or damage. There is no safety grating installed and the hinges are in an unsafe area where the operator will have to lean over an open hole to unlock the hinge to close the hatch. The inside of the wet-well is in good condition. There is some excess grease build up at the bottom of the wet-well. One inlet pipe was partially submerged when the wet-well was opened for inspection. After running the pumps, the level went down below the inlet pipe. The guide rails, chains, and floats are all in good condition. There



was no sign of inflow or infiltration at the time of inspection. The stainless-steel panel box for the control panel is in good condition with a little surface rust. The inside of the panel box is clean and there is no sign of any rust. A Surfline control panel controls the pumps for the station. The panel box is attached to a brick pedestal. The pedestal is missing some bricks but is in good condition. The SCADA mast is attached to the pedestal. There are no conduit seals installed on the conduit. Wet-well piping is corroded and in fair condition. There is some debris build up on end of the pipes. This lift station doesn't have a valve chamber, the second concrete structure is a holding tank which was installed to help with station capacity.

Both pumps are 5 hp and were installed in 2008.

Preliminary recommendations for LS #15 include:

- Clean wet-well chamber.
- Adjust elevations for floats as the inlet pipe being submerged could be caused by the floats being set at the wrong elevation.
- Installation of explosion proofing fittings should be considered.
- Re-establish lost bricks and mortar.

LS #16 – Paley Road – 21 Paley Drive

Overall, the station is in good condition. The exterior concrete of the wet-well is in good condition. The top of the wet-well is approximately 150mm above grade. The hatch cover to the wet-well is in good condition with no rust or damage. There is no safety grating installed. The inside of the wet-well is in good condition. The bottom of the wet-well is clean with no excess grease build up. The guide rails and chains are in good condition.



The floats are wrapped in electrical tape around the connection but are otherwise in good condition. There was no sign of inflow or infiltration at the time of inspection. The stainless-steel panel box for the control panel was installed in 2014 and is in very good condition. Inside of the panel box is clean and there is no sign of any rust. A Panel Shop control panel controls the pumps for the station. The panel box is attached to a brick pedestal. The pedestal is missing some bricks but is in good condition. The SCADA mast is attached to the pedestal. There are EYS fittings installed on the conduit. Wet-well piping is in good condition with some rust on the side of the pipes.

Pump #1 installed in 1996. Pump #2 installed in 2016. Both Pump #1 and Pump #2 are 3 hp

Preliminary recommendations for LS #16 include:

- Monitor floats to make sure connection is stable.
- Performance review on Pump #1 due to age.

LS #17 – Old Public Works Shed – 201 Highway 277

Overall, the station is in good condition. This lift station is located inside of a fenced compound. There is a second chamber that is an where the old lift station was installed, and flow is rerouted through it to the existing lift station. The exterior concrete of the inlet chamber is in good condition. The concrete of the wet-well chamber is cracking under the hatch cover but is otherwise in good condition. The hatch cover to the wet-well is in good condition with no rust or damage. There is no safety grating installed. The inside of the inlet chamber is in good condition.



There was no sign of any inflow or infiltration in the inlet chamber at the time of inspection. The inside of the wet-well chamber is in good condition. There is no excess grease build up. The guide rails are rusty at the operating surface. The chains are rusty but in good condition and the floats are clean and in good condition. There was no sign of inflow or infiltration. The stainless-steel panel box for the control panel is in good condition with no rust or damage. Inside of the panel box is clean and there is no sign of any rust. A Surfline control panel controls the pumps for the station. The panel box is attached to a brick pedestal. The pedestal needs repair. The SCADA mast is attached to the pedestal. There are no conduit seals installed on the conduit. The inlet chamber piping is in good condition with some rust on the end of the overflow pipe. Wet-well piping is in good condition with a small amount of rust.

Both Pump #1 and Pump #2 are 20 hp and were installed in 2020.

Preliminary recommendations for LS #17 include:

- Installation of explosion proofing fittings should be considered.
- Repair cracking under hatch cover to avoid safety hazards, inflow, and infiltration.

LS #18 – Barney Brook – 1369 Highway 2

Overall, the station is in fair condition. At the time of inspection Xylem were on site doing repairs to the lift station. The guide rail nearest to the road (left side in the picture) was not directing the pump down. Therefore, when the pump reached the correct position, it was not sitting properly on the guide rails. The chamber is also prone to run-off from the road. The wet-well chamber has stainless steel sheathing over the top of the concrete. The hatch cover is in good condition with no rust or damage. There is no safety grating installed. The inside of the wet-well chamber is in poor condition. There was no sign of any inflow or infiltration at the time of inspection. The second pair of guide rails (not mentioned previously) have a bolt missing from where they attach to the chamber. The chains and floats are in good condition. The stainless-steel control panel box is in good condition with no rust or damage. Inside of the control panel box is clean and there is no sign of any rust. A Panel Shop control panel controls the pumps for the station. The panel box for the power meter is rusty and in poor condition. Both panel boxes are attached to a brick pedestal. The pedestal is in poor condition. The SCADA mast is attached to a nearby utility pole. The conduit entering the control panel is old and does not have any conduit seals installed. Wet-well piping is in good condition with a small amount of rust. There are two force-mains running from the lift station with five isolation valves. These valves were unable to be accessed for inspection.



Pump #1 was installed in 2016 and Pump #2 was installed in 2022. Both Pump #1 and Pump #2 are 20 hp

Preliminary recommendations for LS #18 include:

- Installation of explosion proofing fittings should be considered.
- Re-attach guide rail to chamber. Repair issue with pump and guide rail closest to roadway.
- Discuss with Nova Scotia Power about a new box for the power meter.
- Repair or replace brick pedestal.
- Plan for station replacement.

LS #19 – Isenor Road – 43 Isenor Road

Overall, the station is in very good condition. The exterior concrete of the wet-well chamber is in good condition. The hatch cover is in good condition with no rust or damage. There is safety grating installed. The area has concrete bollards installed to protect the lift station. The inside of the wet-well chamber is in very good condition and is raised above the road. There is no sign of any inflow or infiltration. The floats have stainless steel brackets to limit the amount of movement and are in good condition. The chains and guide rails are in very good condition. The stainless-steel control panel box is in very good condition with no rust or damage. Inside of the control panel box is clean and there is no sign of any rust. There is an opening in the concrete slab under the panel. A Panel Shop control panel controls the pumps for the station. There is an adapter installed to connect a portable generator for back up power to the lift station. The panel box for the power meter is brand new. The pedestal is in good condition and has had mortar upgrades. The SCADA mast is attached to the brick pedestal. The conduit entering the control panel has EYS fittings installed. Wet-well piping is in good condition with a small amount of rust on the fittings. The valve chamber has no seal between risers. This could cause an inflow and infiltration issue in the future. Valve chamber valves and piping are in good condition.



Both Pump #1 and Pump #2 were installed in 2020. Pump #1 is a 2.2 hp pump and Pump #2 is a 2.5 hp pump.

Preliminary recommendations for LS #19 include:

- Monitor valve chamber for inflow and infiltration due to lack of seal between risers.
- Repair opening in concrete slab under panel box.

LS #20 – Ross' Hill – 1457 Highway 2

Overall, the station is in fair condition. The exterior concrete of the wet-well chamber is in good condition. There is a rusty ventilation pipe exiting the top of the wet-well chamber to the pedestal that is exposed out of the ground and has concrete eroded away around the pipe at the entry point into the chamber. The hatch cover is in good condition with no rust or damage. There is no safety grating installed. The wet-well chamber has a stainless-steel sheathing over the top of the concrete. The inside of the wet-well chamber has an excess amount of grease build up along the side walls and floating at the surface but is in good condition. There was no sign of any inflow or infiltration at the time of inspection. The floats and chains are in good condition. The guide rails are rusted at the top. Ultrasonic level sensor installed. The stainless-steel control panel box is in very good condition with no rust or damage. Inside of the control panel box is clean and there is no sign of any rust. A Panel Shop control panel controls the pumps for the station. The panel box for the power metre is also in very good condition with no damage or rust. The pedestal is leaning and in poor condition with multiple areas where brick and mortar are loose. There is an electrical box attached to the pedestal which is easily opened by a screwdriver. The SCADA mast is attached to a nearby utility pole. The conduit entering the control panel has EYS fittings installed. Wet-well piping rusty and corroded. There is grease build up around the pipe at the operating surface.



Pump #1 was installed in 1997 and Pump #2 was installed in 2007. Both pumps are 5 hp

Preliminary recommendations for LS #20 include:

- Attach lock to electrical box or replace with lockable box to avoid vandalism.
- Repair or replace brick panel pedestal.
- Clean wet-well chamber.
- Repair seal around ventilation pipe. Bury part of pipe which is exposed.
- Performance review on Pump #1 due to age.

LS #21 – Main Office – 2402 Highway 2

Overall, the station is in fair condition. The exterior concrete of the wet-well chamber is extremely corroded. The top of the chamber is approximately 200mm above grade. The hatch cover is also rusty and corroded. There is no safety grating installed. The inside of the wet-well chamber is in good condition but has a small amount of grease build up around the bottom. There was no sign of any inflow or infiltration at the time of inspection. The floats and chains are in good condition. The guide rails are rusty at the



operating surface. The valves located in the wet-well are inoperable due to the difficulty to access them. The stainless-steel control panel box which was installed between 2003-2005 is in good condition with no rust or damage and is attached to a concrete pedestal. Inside of the control panel box is clean and there is no sign of any rust. A Surline control panel controls the pumps for the station. The pedestal is worn but is in good condition. The SCADA mast is attached to the pedestal. The conduit entering the control panel does not have conduit seals installed. The discharge pipe in wet-well is rusty but in good condition. An approximately 100mm overflow pipe which drains to the northwest is in good condition.

Both Pump #1 and Pump #2 are 5 hp and were installed in 2021.

Preliminary recommendations for LS #21 include:

- Installation of explosion proofing fittings should be considered.
- Repair or replace concrete wet-well (exterior), access cover and pedestal.
- Clean wet-well chamber.

LS #22 – Havenwood Road – 8 Havenwood Drive

Overall, the station is in good condition. The exterior cast-in-place concrete of the wet-well chamber is in good condition. The hatch cover is in good condition with no rust. There is no safety grating installed. The inside of the wet-well chamber is in very good condition but has a small amount of grease build up around the walls at the operating surface. There was no sign of any inflow or infiltration at the time of inspection. The floats, chains and guide rails are all in very good condition. The stainless-steel control panel has some rust on the door but is in good condition. The



panel box is attached to a piece of plywood which is supported by two steel bars that are secured to two steel pipes that are bolted to the wet-well chamber. Inside of the control panel box is clean and there is no sign of any rust. A Surfline control panel controls the pumps for the station. The SCADA mast is attached to one of the steel pipes which support the panel box. The conduit entering the control panel does not have conduit seals installed. The piping inside of the wet-well is rusty with some corrosion.

Both Pump #1 and Pump #2 are 3 hp and were installed in 2021.

Preliminary recommendations for LS #22 include:

- Installation of explosion proofing fittings should be considered.

LS #23 – Maitland Road – 2848A Highway 2

Overall, the station is in very good condition. The wet-well is built in a raised grade to be above the flood plain of the nearby river. The exterior concrete of the wet-well chamber is in very good condition. The hatch cover is in good condition with no rust or damage. There is safety grating installed. Around the perimeter of the chamber, some areas have insulation exposed out of the ground. The inside of the wet-well chamber is in very good condition. There was no sign of any inflow or infiltration at the time of inspection. The floats have stainless steel brackets installed to limit movement. The chains and guide rails are in good condition. The stainless-steel control panel has no rust or damage and is in very good condition. The panel box is attached to a concrete pedestal. The pedestal is in very good condition. An adapter to plug in back up power for the lift station is also attached to the pedestal. Inside of the control panel box is clean and there is no sign of any rust. A Panel Shop control panel controls the pumps for the station. The SCADA mast is attached to the pedestal. Some of the conduit entering the panel box is older conduit with no conduit seals and some conduit is newer with EYS fittings installed. Inside of the wet-well the inflow and overflow pipe are concrete and in very good condition. The force-mains are rusty but in good condition.



Both Pump #1 and Pump #2 are 20 hp and were installed in 2009.

Pump #1 was noisy when running.

Preliminary recommendations for LS #23 include:

- Installation of explosion proofing fittings should be considered for conduit that doesn't have them installed.
- Investigate noise. Perform maintenance and performance review for Pump #1.
- Backfill around wet-well chamber to cover exposed insulation.

LS #24 – Burgess Road – 44 Burgess Road

Overall, the station is in good condition. This site has three chambers: a wet-well, a valve chamber and a dormant overflow chamber. The wet-well is built on a raised grade to be above the flood plain of the nearby Shubenacadie river. The exterior concrete of all three chambers is in very good condition. The hatch covers have no rust or damage. The stainless-steel ventilation fan is working but can only operate in high or low and can't be turned off. The wet-well and valve chamber were locked and unable to be opened for inspection as keys were unavailable.



The third chamber is the wet-well for the old lift station which has flow routed through it into the existing lift station. This chamber was able to be accessed for inspection. Inside of this chamber had water present but no sign of inflow. The chamber also had two floats that are in good condition. There is no sign of any inflow or infiltration. The stainless-steel control panel has no rust or damage and is in very good condition. The panel box is attached to a concrete pedestal. The pedestal is in good condition with some rust on the doors of the power meter enclosure. An adapter to plug in back up power for the lift station is also attached to the pedestal. Inside of the control panel box is clean and there is no sign of any rust. A Panel Shop control panel controls the pumps for the station. The SCADA mast is attached to the pedestal. The conduit entering the panel box has EYS fittings installed.

Both Pump #1 and Pump #2 are 20 hp and were installed in 2009.

Although the hatch cover couldn't be opened, the operator ran each pump, and no unusual noise or vibration was observed.

Preliminary recommendations for LS #24 include:

- Inspect valve chamber and report on findings.

3.0 CONCLUSION

The following conclusions have been reached for the Municipality of East Hants sanitary lift station infrastructure:

- The Municipality owns and operates 28 lift stations between Enfield and Shubenacadie.
- The total current 2023 repair/replacement value of lift stations upgrades is approximately \$508,900.
- Overall, the municipalities lift station infrastructure is in **good** condition, however some deficiencies exist:
 - Approximately **6** pumps are past the typical 20-year operating life.
 - **5** lift stations are in fair condition.
 - **5** lift stations have wet-well chambers which are prone to run-off from the road.
 - **10** pedestals need repair or replacement.
 - **13** lift stations should have explosion proofing fittings installed as per Canadian Electrical Code Guidelines.
- **Seven (7)** lift stations require immediate repair within the next 0-2 years. **Peter Horne, Elmsdale Fire Hall, Old Elmsdale School, Old Public Works Shed, Barney Brook, Ross' Hill, and Main Office** stations should receive upgrades or be replaced before 2025.
- **Fifteen (15)** lift stations will require upgrades or replacement within the next 7-12 years. **Horne Settlement, Locks Road, Curley Portables, Mill (Elmsdale Lumber), Medical Centre, Pine Grove, Industrial Park, Carmies Daycare, Elmsdale Legion, Lantz Cemetery, Sportsplex, Poplar Drive, Paley Road, Havenwood Drive and Maitland Road** stations should receive upgrades or be replaced by 2035.
- **Two (2)** lift stations will require upgrades or repairs in the next 20-25 years. **Donaldson Avenue** and **Burgess Road** stations should receive upgrades or repairs by 2040.
- **Three (3)** lift stations will require upgrades or repairs in the next 25+ years. **Sherwood Park, Park Road Extension** and **Isenor Road** stations should receive upgrades or repairs by 2050.

Appendix C provides a summary table of works to consider at each station and the suggested timing for implementation.

East Hants Lift Station Assessment						
Lift Station Name	Address	Physical Condition	Interior Wet-Well Condition	Panel Condition	Piping Condition	Overall Condition
LS #1: Peter Horne	102 Highway 2	Poor	Good	Fair	Good	Fair
LS #2: Sherwood Park	32 Sherwood Drive	Very Good	Very Good	Good	Very Good	Very Good
LS #3: Horne Settlement	20 Old Horne Settlement Road	Fair	Good	Good	Good	Good
LS #4: Donaldson Avenue	21 Donaldson Avenue	Very Good	Good	Very Good	Very Good	Very Good
LS #5: Locks Road	6A Locks Road	Good	Good	Good	Good	Good
LS #7: Curley Portables	453A Highway 2	Good	Good	Good	Good	Good
LS #8: Mill (Elmsdale Lumber)	595 Highway 2	Good	Good	Good	Good	Good
LS #9: Elmsdale Fire Hall	730 Highway 2	Fair	Good	Good	Good	Good
LS #10: Medical Centre	104 Elmsdale Road (HWY 214)	Fair	Good	Good	Good	Good
LS #10A: Pine Grove	81 Pinehill Drive	Good	Good	Good	Good	Good
LS #11: Old Elmsdale School	235 Elmsdale Road (HWY 214)	Fair	Fair	Fair	Fair	Fair
LS #11A: Industrial Park	12 Industrial Way	Good	Good	Fair	Good	Good
LS #11B: Carmies Daycare	416 Elmsdale Road (HWY 214)	Good	Good	Very Good	Good	Good
LS #11C: Park Road Extension	279 Park Road	Good	Good	Very Good	Very Good	Very Good
LS #12: Elmsdale Legion	849 Highway 2	Good	Good	Fair	Good	Good
LS #13: Lantz Cemetery	984 Highway 2	Good	Good	Good	Fair	Good
LS #14: Sportsplex	1070 Highway 2	Good	Good	Good	Good	Good
LS #15: Poplar Drive	50A Poplar Drive	Good	Good	Good	Fair	Good
LS #16: Paley Road	21 Paley Road	Good	Good	Very Good	Good	Good
LS #17: Old Public Works Shed	20 Highway 277	Good	Good	Good	Good	Good
LS #18: Barney Brook	1369 Highway 2	Good	Poor	Fair	Good	Fair
LS #19: Isenor Road	43 Isenor Road	Good	Very Good	Very Good	Good	Very Good
LS #20: Ross' Hill	1457 Highway 2	Fair	Good	Very Good	Fair	Fair
LS #21: Main Office	2402 Highway 2	Poor	Fair	Good	Good	Fair
LS #22: Havenwood Drive	8 Havenwood Drive	Good	Very Good	Good	Good	Good
LS #23: Maitland Road	2848A Highway 2	Very Good	Very Good	Very Good	Very Good	Very Good
LS #24: Burgess Road	44 Burgess Road	Very Good	Good	Good	N/A	Good

Figure 2: East Hants Lift Station Overall Condition

APPENDIX A

Field Assessment Reports



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #1"/>	YEAR BUILT		<input type="text"/>	
NAME	<input type="text" value="Peter Horne"/>				
ADDRESS	<input type="text" value="102 Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text" value="Underground power."/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3102.060"/>		Pump 2 Model #		<input type="text" value="3102.060"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text" value="2150059"/>		SERIAL #		<input type="text" value="1560554"/>	
RATED POWER	<input type="text" value="5"/>	IMPELLAR MODEL	<input type="text" value="462"/>	RATED POWER	<input type="text" value="5"/>	IMPELLER MODEL	<input type="text" value="462"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2021"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2015"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input checked="" type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	Surflin		MODEL	215
SERIAL	2387		YEAR	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2133"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="1500 x 750"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input checked="" type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm system.

Pump chamber separate from panel and near road. Panel is not accessible by vehicle.

Meter box in poor condition. No EYS. Duct seal at top of conduit, underneath panel. Scada pole attached to loose brick on pedestal.

Concrete structure for wetwell good. Double hatch cover is rusty with one handle broken. New chains. New pumps installed in 2021. Two laterals on sidewalk side of chamber. Chamber in good condition.

Force-main located further up on the highway on the west side.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 08:29:32 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #2"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Sherwood Park"/>				
ADDRESS	<input type="text" value="32 Sherwood Drive"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input checked="" type="checkbox"/>	NONE <input type="checkbox"/>	<input type="text" value="Plug in for generator backup."/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			

PUMP					
PUMP 1 Model #	<input type="text" value="3102.095"/>		Pump 2 Model #	<input type="text" value="3102.095"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>
SERIAL #	<input type="text" value="1740056"/>		SERIAL #	<input type="text" value="1740055"/>	
RATED POWER	<input type="text" value="5"/>	IMPELLAR MODEL	<input type="text" value="464"/>	RATED POWER	<input type="text" value="5"/>
FLOATS	<input type="text" value="2"/>		FLOATS	<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2017"/>	DISCHARGE DIA. (mm)	<input type="text"/>
				INST. YEAR	<input type="text" value="2017"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	Cutting Edge		MODEL	CE8300
SERIAL	1475		YEAR	<input type="text"/>

CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
LIFTING DAVIT	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="4500"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="1050 x 900 (single hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Stainless steel panel attached to concrete pedestal. Galvanized mast for SCADA. Plug-in accessible for generator back up power. EYS attached to conduit.

Wet-well chamber in great condition. Hooks for chains corroded. Chamber has 2 floats with a level sensor. Noise coming from wet-well. Plate to attach lifting davit is a tripping hazard. Force-main running to Doyle Drive. Hatch too small to safely move pumps.

Known fault on Pump 2 monitor which wouldn't allow Pump 2 to run. No issues with Pump 1.

Valve chamber filled with water to top of pipe. Chamber has ladder and safety grate installed.

Air ventilation system turned off due to residents experiencing odour. Odour still exists with ventilation turned off.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 08:48:47 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #3"/>	YEAR BUILT		<input type="text"/>	
NAME	<input type="text" value="Horne Settlement"/>				
ADDRESS	<input type="text" value="20 Old Horne Settlement Road"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3102.060"/>		Pump 2 Model #		<input type="text" value="3102.060"/>	
PUMP TYPE	<input type="text"/>	MAKE	<input type="text" value="FlyGT"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>
SERIAL #		<input type="text"/>		SERIAL #		<input type="text" value="2230181"/>	
RATED POWER	<input type="text" value="5"/>	IMPELLAR MODEL	<input type="text"/>	RATED POWER	<input type="text" value="5"/>	IMPELLER MODEL	<input type="text" value="462"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="1996"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2022"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input checked="" type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20		
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input checked="" type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS							
I&C #	<input type="text"/>						
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>			
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DESCRIPTION	<input type="text"/>						
MAKE	Surflin		MODEL	<input type="text"/>			
SERIAL	<input type="text"/>		YEAR	<input type="text"/>			
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%		

LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2150"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="1900 x 750 (single hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input checked="" type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm is working.

Cover is rusty with a broken hinge.

Wet-well in good condition. New chains installed. Some separation noted along wall joints inside of chamber.

Stainless steel panel box in good condition.

Metre box on side of panel is rusty and frail on the bottom.

Pump 1: Noisy. Requires maintenance.

Pump 2: Brand new. Quiet with no vibration.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 09:32:06 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #4"/>	YEAR BUILT		<input type="text"/>	
NAME	<input type="text" value="Donaldson Ave"/>				
ADDRESS	<input type="text" value="21 Donaldson Ave"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input checked="" type="checkbox"/>	NONE <input type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3171.181"/>		Pump 2 Model #		<input type="text" value="3171.181"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>	PUMP TYPE	<input type="text" value="Submersiblr"/>	MAKE	<input type="text" value="FlyGT"/>
SERIAL #		<input type="text" value="0860185"/>		SERIAL #		<input type="text" value="0860186"/>	
RATED POWER	<input type="text" value="30"/>	IMPELLAR MODEL	<input type="text" value="454 HT"/>	RATED POWER	<input type="text" value="30"/>	IMPELLER MODEL	<input type="text" value="454 HT"/>
FLOATS		<input type="text" value="2"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2008"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2008"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input checked="" type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20		
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS					
I&C #	<input type="text"/>				
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>	
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>	
DESCRIPTION	<input type="text"/>				
MAKE	FlyGT	MODEL	<input type="text"/>		
SERIAL	<input type="text"/>	YEAR	<input type="text"/>		
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="3700"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="1500 x 1250 (dual hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm attached to pedestal.

Gooseneck on wet-well chamber as well as valve chamber.

Wet-well in overall good condition.

Panel box and structures in great condition. EYS at bottom of panel. GMCI plug installed in panel. Wasps living in panel containing metre box.

Valve chamber consists of twin force mains with a flow meter. Chamber is dry at the time of inspection and clean. Double access to valve chamber (900 x 900) with access ladder. Valves have 200mm pipe.

Two floats and a level sensor under hatch frame.

Pump #1 - quiet, no vibration

Pump #2 - quiet, check valve closed causing a "hammer" noise.

Air ventilation noisy and making a clunking noise.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 09:59:16 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #5"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Locks Road"/>				
ADDRESS	<input type="text" value="6A Locks Road"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3085.183"/>		Pump 2 Model #		<input type="text" value="3085.183"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text" value="0088007"/>		SERIAL #		<input type="text" value="1750162"/>	
RATED POWER	<input type="text" value="5"/>	IMPELLAR MODEL	<input type="text" value="282"/>	RATED POWER	<input type="text" value="5"/>	IMPELLER MODEL	<input type="text" value="282"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2008"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2017"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input checked="" type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	Surflin		MODEL	215
SERIAL	2195		YEAR	<input type="text"/>

CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="1900"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text" value="300"/>
COVER DIA. (MM)	<input type="text" value="500 x 750 (dual hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Top of wet-well chamber approximately 300mm above grade. Concrete in good condition.

No EYS. Stainless steel panel in good condition with a small amount of rust on the door.

Alarm is working.

Valves are buried. Location unknown at the time of inspection.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 09:18:23 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #7"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Curley Portables"/>				
ADDRESS	<input type="text" value="453A Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3301.180"/>		Pump 2 Model #		<input type="text" value="3301.185"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text" value="1670046"/>		SERIAL #		<input type="text" value="1950008"/>	
RATED POWER	<input type="text" value="85"/>	IMPELLAR MODEL	<input type="text"/>	RATED POWER	<input type="text" value="85"/>	IMPELLER MODEL	<input type="text" value="464"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2016"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2019"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input checked="" type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	Surfline	MODEL	<input type="text"/>	
SERIAL	<input type="text"/>	YEAR	<input type="text"/>	

CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	2500 x 2500	LENGTH		HEIGHT	
COVER DIA. (MM)	1100 x 1500 (dual hatch)		YEAR INSTALLED			
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Largest station of all stations being inspected for this study.

Two valves in valve chamber with flow meters. Water up to bottom of pipe. Valves rusty.

Panel located inside of building. Building, panels, structure in good condition. Inside of building has fan that doesn't work.

Wet-well chamber in good condition. Build up of grease and dirt in the bottom but pumps run fine.

Alarm system active.

Chains rusted in wet-well.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 10:20:52 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #8"/>	YEAR BUILT		<input type="text"/>	
NAME	<input type="text" value="Mill"/>				
ADDRESS	<input type="text" value="595 Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3202.180"/>		Pump 2 Model #		<input type="text" value="3201.180"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text" value="1150188"/>		SERIAL #		<input type="text" value="3201001"/>	
RATED POWER	<input type="text" value="70"/>	IMPELLAR MODEL	<input type="text" value="458 HT"/>	RATED POWER	<input type="text" value="47"/>	IMPELLER MODEL	<input type="text" value="452 HT"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2011"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="1989"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input checked="" type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input checked="" type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	Surflin		MODEL	9015
SERIAL	<input type="text"/>		YEAR	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2900"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="1900 x 1000 (dual hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input checked="" type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm attached to panel. Light leaning.

Stainless steel panel in good condition. Fans are working. No EYS.

Structure and chamber in good condition. Some minor corrosion on guide bars, floats are dirty and chains are corroded. Two floats with a level sensor.

Valve chamber (dia: 2600mm) has two valves. Valve chamber is dry and valves are in good condition. Small amount of rust on pipes. Single access hatch.

Both concrete structures 800mm above grade, in good condition. Approximately 6m from road.

Both pumps - Quiet when starting and running. Makes a noise when shutting down.

Two overflow pipes. Flap gate that should open and debris build up on OFS.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 11:03:35 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #9"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Elmsdale Fire Hall"/>				
ADDRESS	<input type="text" value="730 Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP					
PUMP 1 Model #		<input type="text"/>		Pump 2 Model # <input type="text" value="3153.181"/>	
PUMP TYPE	<input type="text"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>
		MAKE	<input type="text" value="Flygt"/>		
SERIAL #		<input type="text"/>		SERIAL # <input type="text" value="1570156"/>	
RATED POWER	<input type="text"/>	IMPELLAR MODEL	<input type="text"/>	RATED POWER	<input type="text" value="20"/>
		IMPELLER MODEL	<input type="text" value="462"/>		
FLOATS		<input type="text" value="4"/>		FLOATS <input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2015"/>	DISCHARGE DIA. (mm)	<input type="text"/>
		INST. YEAR	<input type="text" value="2015"/>		



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20		
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS							
I&C #	<input type="text"/>						
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>			
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DESCRIPTION	<input type="text"/>						
MAKE	Surflin		MODEL	9015			
SERIAL	<input type="text"/>		YEAR	<input type="text"/>			
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%		



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES					
STRUCTURE #					
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>		
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>		
DIMENSIONS	DIA.	<input type="text"/>	LENGTH	<input type="text"/>	HEIGHT <input type="text"/>
COVER DIA. (MM)	1050 x 1600		YEAR INSTALLED	<input type="text"/>	
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm system on panel box.

Panel box in good shape however structure is leaning to the west and some bricks have came loose. PVC vent pipe attached to side is disconnected at the top.

Chamber built in boulevard between road and sidewalk. Stainless steel hatch prone to getting struck/ran over by trucks. Guide bars and chains in good condition. Floats are new. Some grease build up at high level.

Location of valves unknown at the time of inspection.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 11:21:37 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #10"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Elmsdale Medical Centre"/>				
ADDRESS	<input type="text" value="104 Highway 214"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP					
PUMP 1 Model #	<input type="text" value="3152.181"/>		Pump 2 Model #	<input type="text" value="3153.181"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>
SERIAL #	<input type="text" value="3152019"/>		SERIAL #	<input type="text" value="0940022"/>	
RATED POWER	<input type="text" value="20"/>	IMPELLAR MODEL	<input type="text" value="454"/>	RATED POWER	<input type="text" value="20"/>
FLOATS	<input type="text" value="4"/>		FLOATS	<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text"/>	DISCHARGE DIA. (mm)	<input type="text"/>
				INST. YEAR	<input type="text" value="2009"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input checked="" type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	Surflin		MODEL	9015
SERIAL	<input type="text"/>		YEAR	<input type="text"/>

CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2200"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="660 x 920 (single hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Wet-well chamber located approximately one metre from edge of asphalt. Prone to snow and plows. Doors have been ripped off before. Security bar on hatch rusted off from bolt. Guide bars and chains have some corrosion.

Stainless steel panel box dirty but in good shape. Panel box was hard to close.

Alarm attached to brick pedestal. Pedestal in good shape but missing some brick and mortar.

Pipes to valve chamber lead across the road however location of valve chamber was unknown at the time of inspection.

Pump #2 - Runs ok. Some minor noise.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 11:33:51 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L. S #10A"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Pine Grove"/>				
ADDRESS	<input type="text" value="81 Pinehill Drive"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input checked="" type="checkbox"/>	NONE <input type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			

PUMP							
PUMP 1 Model #		<input type="text" value="3102.160"/>		Pump 2 Model #		<input type="text" value="3102.060"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text" value="1810040"/>		SERIAL #		<input type="text" value="1950029"/>	
RATED POWER	<input type="text" value="3.9"/>	IMPELLAR MODEL	<input type="text" value="464"/>	RATED POWER	<input type="text" value="3.9"/>	IMPELLER MODEL	<input type="text" value="464"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2018"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2019"/>

LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input checked="" type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20		
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS					
I&C #	<input type="text"/>				
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>	
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>	
DESCRIPTION	<input type="text"/>				
MAKE	Flygt	MODEL	C-3102		
SERIAL	49621/87	YEAR	<input type="text"/>		
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="1800"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text" value="600mm above grade"/>
COVER DIA. (MM)	<input type="text" value="1150 x 900 (dual hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input checked="" type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Older lift station.

Red alarm light on top of lift station.

Stainless steel panel in good condition. Some rust on lock and enclosure. New adapter installed for plug-in to a generator for back-up power.

Wet-well chamber in good condition. Dry and clean inside with no I&I. Two 100mm stainless steel vent pipes exiting from top of chamber. Top of wet-well approximately 600mm above grade.

Valve is inoperable due to location.

Pump 1 had no issues or concerns while running.

Pump 2 had a delay starting. Otherwise, no issues or concerns while running.

Boom truck used to lift pumps instead of lifting davit.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 11:45:38 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #11"/>	YEAR BUILT		<input type="text"/>	
NAME	<input type="text" value="Old Elmsdale School"/>				
ADDRESS	<input type="text" value="235 Elmsdale Road (Highway 214)"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3127.185"/>		Pump 2 Model #		<input type="text" value="3127.160"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text" value="1620048"/>		SERIAL #		<input type="text" value="1620078"/>	
RATED POWER	<input type="text" value="10"/>	IMPELLAR MODEL	<input type="text" value="488"/>	RATED POWER	<input type="text" value="10"/>	IMPELLER MODEL	<input type="text" value="488"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2016"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2016"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20		
Vibration	<input type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS							
I&C #	<input type="text"/>						
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>			
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DESCRIPTION	<input type="text"/>						
MAKE	Surflin		MODEL	9015			
SERIAL	<input type="text"/>		YEAR	<input type="text"/>			
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%		

LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input checked="" type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm system attached to panel box. Light leaning southeast.

Wet-well access built into road. Couldn't access without traffic control or excavator. Wet-well cleaned every 18-24 months.

Stainless steel panel box in good condition. Fan to remove heat from inside of panel box not working. Surfex Controller screen blacked out. Possibly due to temperature inside of panel box. Unable to read information being displayed. No EYS on conduit at bottom of panel box. Brick pedestal in good condition. Some brick and mortar missing.

Top of valve chamber elevated from grade.

Valve chamber next to shoulder and in good condition. Small amount of water at the bottom of the chamber. Minor mud seepage through risers. Valves have minor rust but in overall good condition. Lid prone to road salt, snow and runoff.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 12:13:19 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #11A"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Industrial Park"/>				
ADDRESS	<input type="text" value="12 Industrial Way"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3152.181"/>		Pump 2 Model #		<input type="text" value="3153.181"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text"/>		SERIAL #		<input type="text" value="1550049"/>	
RATED POWER	<input type="text" value="14.8"/>	IMPELLAR MODEL	<input type="text" value="436"/>	RATED POWER	<input type="text" value="15"/>	IMPELLER MODEL	<input type="text" value="435"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2015"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input checked="" type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	Surflin		MODEL	215
SERIAL	2224		YEAR	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input checked="" type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm attached to panel box.

Conduit under panel box not completely or properly sealed. Hinge falling off of cover.

Panel box, wet well and valve chamber all in good condition.

Leak in the wet well from check valve when pumps are pumping. Lift station can have high flow at times due to swimming pool and brewery being connected.

Pump 1 has no issues. Pump 2 has vibration and rattling noise.

Valve chamber lined with styrofoam. Some pieces of styrofoam detached from wall and floating in valve chamber. Approximately 600mm of water in valve chamber.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 15:36:03 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #11B"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Carmies Daycare"/>				
ADDRESS	<input type="text" value="416 Elmsdale Road (Highway 214)"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP					
PUMP 1 Model #	<input type="text" value="3127.181"/>		Pump 2 Model #	<input type="text" value="3127.181"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>
SERIAL #	<input type="text" value="0550332"/>		SERIAL #	<input type="text" value="0550333"/>	
RATED POWER	<input type="text" value="7.5"/>	IMPELLAR MODEL	<input type="text" value="489"/>	RATED POWER	<input type="text" value="7.5"/>
FLOATS	<input type="text" value="4"/>		FLOATS	<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2015"/>	DISCHARGE DIA (mm)	<input type="text"/>
				INST. YEAR	<input type="text" value="2015"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20		
Vibration	<input type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input checked="" type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input checked="" type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS							
I&C #	<input type="text"/>						
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>			
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DESCRIPTION	<input type="text"/>						
MAKE	<input type="text"/>		MODEL	<input type="text"/>			
SERIAL	<input type="text"/>		YEAR	<input type="text"/>			
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%		

LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	1820	LENGTH		HEIGHT	
COVER DIA. (MM)	1425 x 900		YEAR INSTALLED			
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Pump 1: Ran ok. No sound or vibrations noted.

Pump 2: Loud rattling sound and could feel vibration.

Alarm attached to panel box.

Valve chamber only accessible with drill to remove nuts. Did not inspect.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew
Keeping
Date: 2022.09.01 14:17:24 -
03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #11C"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Park Road Extension"/>				
ADDRESS	<input type="text" value="279 Park Road"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input checked="" type="checkbox"/>	NONE <input type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			

PUMP					
PUMP 1 Model #	<input type="text" value="3127.190"/>		Pump 2 Model #	<input type="text" value="3127.190"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>
SERIAL #	<input type="text" value="1320052"/>		SERIAL #	<input type="text" value="1320051"/>	
RATED POWER	<input type="text" value="10"/>	IMPELLAR MODEL	<input type="text" value="488"/>	RATED POWER	<input type="text" value="10"/>
FLOATS	<input type="text" value="2"/>		FLOATS	<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2013"/>	DISCHARGE DIA (mm)	<input type="text"/>
				INST. YEAR	<input type="text" value="2013"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	<input type="text"/>	MODEL	<input type="text"/>	
SERIAL	<input type="text"/>	YEAR	<input type="text"/>	

CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
LIFTING DAVIT	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2900"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="935 x 1925"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Panel box, wet well and valve chamber all in good condition.

Small amount of water at bottom of valve chamber however there is a good seal around the risers and pipes are in brand new condition.

Alarm attached to panel box.

Two floats in wet well and one level sensor.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 14:02:04 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #12"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Elmsdale Legion"/>				
ADDRESS	<input type="text" value="849 Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP					
PUMP 1 Model #	<input type="text" value="3127.060"/>		Pump 2 Model #	<input type="text" value="3127.060"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>
SERIAL #	<input type="text" value="2160078"/>		SERIAL #	<input type="text" value="2160077"/>	
RATED POWER	<input type="text" value="7.5"/>	IMPELLAR MODEL	<input type="text" value="489"/>	RATED POWER	<input type="text" value="7.5"/>
FLOATS	<input type="text" value="4"/>		FLOATS	<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2021"/>	DISCHARGE DIA (mm)	<input type="text"/>
				INST. YEAR	<input type="text" value="2021"/>

LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input checked="" type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20		
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS					
I&C #	<input type="text"/>				
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>	
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>	
DESCRIPTION	<input type="text"/>				
MAKE	Surflin		MODEL	<input type="text"/>	
SERIAL	<input type="text"/>		YEAR	<input type="text"/>	
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2150"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="1610 x 1125"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Panel box structure leaning.

Alarm system attached to panel box.

Grease accumulation at bottom of wet well. No issues when running pumps.

Valve chamber dry with small amount of water at bottom. Valves rusty but no other issues noted.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew
Keeping
Date: 2022.09.01 14:36:58 -
03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #13"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Elmsdale Cemetary"/>				
ADDRESS	<input type="text" value="984 Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
SCADA?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3152.181"/>		Pump 2 Model #		<input type="text" value="3152.181"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text" value="8910032"/>		SERIAL #		<input type="text" value="3152010"/>	
RATED POWER	<input type="text" value="15"/>	IMPELLAR MODEL	<input type="text" value="436"/>	RATED POWER	<input type="text" value="15"/>	IMPELLER MODEL	<input type="text" value="436"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="1989"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text"/>

LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input checked="" type="checkbox"/> ≥ 20		
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS					
I&C #	<input type="text"/>				
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>	
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>	
DESCRIPTION	<input type="text"/>				
MAKE	<input type="text" value="Surflin"/>	MODEL	<input type="text"/>		
SERIAL	<input type="text"/>	YEAR	<input type="text"/>		
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2900"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="1650 x 1100"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm system attached to panel box.
Structures, panel box and inside of wet well in good condition.
Wet well and panel box located along sidewalk.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 14:51:59 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #14"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Sportsplex"/>				
ADDRESS	<input type="text" value="1070 Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3201.180"/>		Pump 2 Model #		<input type="text" value="3202.185"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text" value="9010022"/>		SERIAL #		<input type="text" value="2010028"/>	
RATED POWER	<input type="text" value="35"/>	IMPELLAR MODEL	<input type="text" value="637"/>	RATED POWER	<input type="text" value="35"/>	IMPELLER MODEL	<input type="text" value="642"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="1990"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2020"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input checked="" type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input checked="" type="checkbox"/> ≥ 20		
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS							
I&C #	<input type="text"/>						
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>			
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DESCRIPTION	<input type="text"/>						
MAKE	<input type="text"/>		MODEL	<input type="text"/>			
SERIAL	<input type="text"/>		YEAR	<input type="text"/>			
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%		



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	1460 x 3510	LENGTH		HEIGHT	
COVER DIA. (MM)	1425 x 2150		YEAR INSTALLED			
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm system attached to panel box.
Panel box structure has some minor masonry damage.
Structures for valve chamber and wet well are in good condition.
Valve chamber was dry and in good condition.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.01 15:33:28 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #15"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Poplar Drive"/>				
ADDRESS	<input type="text" value="50A Poplar Drive"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			

PUMP					
PUMP 1 Model #	<input type="text" value="3102.181"/>		Pump 2 Model #	<input type="text" value="3102.181"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>
SERIAL #	<input type="text" value="0810321"/>		SERIAL #	<input type="text" value="0810320"/>	
RATED POWER	<input type="text" value="5"/>	IMPELLAR MODEL	<input type="text" value="464"/>	RATED POWER	<input type="text" value="5"/>
FLOATS	<input type="text" value="4"/>		FLOATS	<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2008"/>	DISCHARGE DIA (mm)	<input type="text"/>
				INST. YEAR	<input type="text" value="2008"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input checked="" type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20		
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS							
I&C #	<input type="text"/>						
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>			
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DESCRIPTION	<input type="text"/>						
MAKE	<input type="text"/>		MODEL	<input type="text"/>			
SERIAL	<input type="text"/>		YEAR	<input type="text"/>			
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%		

LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2210"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="750 x 900 (dual hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm system attached to panel box. Light hanging from pedestal. Pedestal in good condition. Some mortar missing.

Metre box rusty at the bottom. New metre and disconnect switch installed.

Panel box in good condition. No EYS. According to municipal worker operating the lift stations for us this type of panel is easy to operate. The newer panel boxes are more difficult.

Lock on valve chamber seized, unable to open.

Hatch covers in good condition. Hinges on hatch covers installed on wrong side. Safety hazard when unlocking to close hatch covers.

One of the inlet pipes was partially submerged in wet well when cover was opened. Once pumps were started inlet began flowing into wet well. Possible problem with float elevation/tightness.

Pump #1 controls Poplar Drive, Pump #2 controls side street.

Wet-well chamber in good condition. Guide bars and chains all in good condition. Grease build up at bottom of wet-well. Wet well contains a valve on the back. Unsure of the use.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.06 15:15:35 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #16"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Paley Road"/>				
ADDRESS	<input type="text" value="21 Paley Drive"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP					
PUMP 1 Model #	<input type="text" value="3085.183"/>		Pump 2 Model #	<input type="text" value="3085.183"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>
SERIAL #	<input type="text" value="0830325"/>		SERIAL #	<input type="text" value="1670095"/>	
RATED POWER	<input type="text" value="3"/>	IMPELLAR MODEL	<input type="text" value="462"/>	RATED POWER	<input type="text" value="3"/>
FLOATS	<input type="text" value="2"/>		FLOATS	<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="1996"/>	DISCHARGE DIA (mm)	<input type="text"/>
				INST. YEAR	<input type="text" value="2016"/>

LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input checked="" type="checkbox"/> ≥ 20		
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS							
I&C #	<input type="text"/>						
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>			
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DESCRIPTION	<input type="text"/>						
MAKE	Panel Shop		MODEL	<input type="text"/>			
SERIAL	<input type="text"/>		YEAR	2014			
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%		

LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2210"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="700 x 900 (dual hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Alarm system attached to panel box.

Brick pedestal in good shape. Some brick and mortar missing from the top. Metal gooseneck vent pipe attached to pedestal. Pipe in good condition.

Panel was made by Panel Shop and installed in 2014.

Top of wet-well approximately 150mm above grade. Concrete in good condition. Only able to open one hatch as the key for the second hatch was broken. Floats and chains in good condition.

Two floats in wet well and one new level sensor. Floats wrapped with electrical tape around connection.

DATE OF INSPECTION

Sept 1, 2022

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.06 15:18:44 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #17"/>	YEAR BUILT		<input type="text"/>	
NAME	<input type="text" value="Old Public Works Shed"/>				
ADDRESS	<input type="text" value="201 Highway 277"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3153.185"/>		Pump 2 Model #		<input type="text" value="3152.181"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text" value="1960031"/>		SERIAL #		<input type="text" value="9020640"/>	
RATED POWER	<input type="text" value="20"/>	IMPELLAR MODEL	<input type="text" value="462"/>	RATED POWER	<input type="text" value="20"/>	IMPELLER MODEL	<input type="text" value="454"/>
FLOATS		<input type="text" value="5"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2020"/>	DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2020"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input checked="" type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input type="checkbox"/> No unusual noise	<input checked="" type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	<input type="text" value="Surflin"/>		MODEL	<input type="text" value="9015"/>
SERIAL	<input type="text"/>		YEAR	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	3.55 x 3.55	LENGTH		HEIGHT	
COVER DIA. (MM)	1030 x 1420 (dual hatch)		YEAR INSTALLED			
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input checked="" type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Inside of fenced compound. Chambers prone to run-off in yard.
Site has good drainage to the south.
Three chambers on site. Circular chamber (2120mm dia.) is an inlet chamber.
Square chamber is the wet-well and an obsolete Valve Chamber filled with gravel.
Concrete around inlet chamber in rough condition. Dual hatch 900 x 1390.
Inlet chamber is dry with no visible I&I.
Wet-well concrete under cover is cracked. Chamber dry inside with no visible I&I.
Both pumps in good working condition. Pump #2 pumps faster than Pump #1.
Guide bars rusted near operating surface. 300mm overflow pipe drains to the east.
Alarm system attached to monument. Attempted to trigger high level alarm. Alarm sounded in panel but light did not flash.
Stainless steel panel box in good condition. Pedestal in need of repair. PVC vent pipe attached to back of pedestal.

DATE OF INSPECTION	INSPECTOR	SIGNATURE
September 8, 2022	M. Keeping	Digitally signed by Matthew Keeping Date: 2022.09.08 13:50:37 -03'00' <i>Matthew Keeping</i>



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #18"/>	YEAR BUILT		<input type="text"/>	
NAME	<input type="text" value="Barney's Brook"/>				
ADDRESS	<input type="text" value="1369 Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3153.181"/>		Pump 2 Model #		<input type="text" value="3153.185"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>
SERIAL #		<input type="text" value="1570437"/>		SERIAL #		<input type="text" value="2230107"/>	
RATED POWER	<input type="text" value="20"/>	IMPELLAR MODEL	<input type="text" value="461"/>	RATED POWER	<input type="text" value="20"/>	IMPELLER MODEL	<input type="text" value="463"/>
FLOATS		<input type="text" value="2"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2016"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2022"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20		
Vibration	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input type="checkbox"/> No unusual noise	<input checked="" type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS					
I&C #	<input type="text"/>				
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>	
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>	
DESCRIPTION	<input type="text"/>				
MAKE	<input type="text"/>	MODEL	<input type="text"/>		
SERIAL	<input type="text"/>	YEAR	<input type="text"/>		
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	630 x 840 (dual hatch)		YEAR INSTALLED			
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input checked="" type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Xylem on site to do repairs to lift station. Guide rail on road side of lift station not directing pump down. Pump is not sitting appropriately.

Top of chamber lined with stainless steel sheathing. Cover in good condition.

Panel box in good condition with working alarm attached. Pedestal in poor condition. Old conduit running into new panel box with no EYS.

Metre box for NS Power metre in poor condition. Steel vent pipe on back, rusty.

Two floats and a Ultrasonic level sensor.

Wet-well dry inside. No visible I&I. Guide rails in good shape but one pair is missing a bolt to attach to side of chamber. Discharge pipe rusty.

Prone to runoff from road. Two force mains with five valves for isolation.

DATE OF INSPECTION

9/8/22

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.08 14:35:47 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #19"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Iseor Road"/>				
ADDRESS	<input type="text" value="43 Iseor Road"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input checked="" type="checkbox"/>	NONE <input type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			

PUMP					
PUMP 1 Model #	<input type="text" value="3185.070"/>		Pump 2 Model #	<input type="text" value="3082.180"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>	PUMP TYPE	<input type="text" value="Submersible"/>
SERIAL #	<input type="text" value="2010014"/>		SERIAL #	<input type="text" value="0035268"/>	
RATED POWER	<input type="text" value="2.2"/>	IMPELLAR MODEL	<input type="text" value="436"/>	RATED POWER	<input type="text" value="2.5"/>
FLOATS	<input type="text" value="5"/>		FLOATS	<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2020"/>	DISCHARGE DIA. (mm)	<input type="text"/>
				INST. YEAR	<input type="text" value="2020"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input checked="" type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	Siemens	MODEL	<input type="text"/>	
SERIAL	<input type="text"/>	YEAR	<input type="text"/>	

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2200"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="1070 x 1040 (dual hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Stainless steel panel box. Opening in concrete slab under panel. EYS installed on all conduit at bottom of panel. New 600V NS Power metre installed in stainless steel box. Adapter installed for connection to generator back up power. Alarm light attached at top of pedestal. Pedestal has had mortar upgrades.
Two bollards place near road.

Wet-well concrete in great condition. Stainless steel hatch cover and ventilation pipe. Top of chamber raised above road.

5 floats with stainless steel brackets. Ultrasonic level sensor.

Valve chamber in great condition. Ladder for access. Inside of chamber clean and dry with no visible I&I. No seal between risers. Top of chamber raised above road.

DATE OF INSPECTION

9/8/22

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.08 14:18:43 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #20"/>	YEAR BUILT		<input type="text"/>	
NAME	<input type="text" value="Ross' Hill"/>				
ADDRESS	<input type="text" value="1457 Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3102.180"/>		Pump 2 Model #		<input type="text" value="3102.181"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="Flygt"/>
SERIAL #		<input type="text" value="9750178"/>		SERIAL #		<input type="text" value="0740238"/>	
RATED POWER	<input type="text" value="5"/>	IMPELLAR MODEL	<input type="text" value="433"/>	RATED POWER	<input type="text" value="5"/>	IMPELLER MODEL	<input type="text" value="463"/>
FLOATS		<input type="text" value="2"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="1997"/>	DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2007"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input checked="" type="checkbox"/> ≥ 20
Vibration	<input type="checkbox"/> None	<input checked="" type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	<input type="text"/>	MODEL	<input type="text"/>	
SERIAL	<input type="text"/>	YEAR	<input type="text"/>	

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2200"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="630 x 850 (dual hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input checked="" type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Wet-well chamber approximately 5m from road. Chamber has stainless steel sheathing. Top of chamber approximately 150mm above grade.
Wet well is old but clean inside and in good condition. Fair amount of fat/grease settled at the bottom of the chamber. Guide bars rusted at the top.
Pedestal in poor condition. Multiple places where brick and mortar are loose or completely gone and pedestal leaning north. Panel and metre box in good condition
Smaller electrical box underneath panel box in good condition but is not locked.
Can easily be opened with a flat top screwdriver. EYS on conduit going to panel.
Concrete around rusty ventilation pipe exiting wet well chamber has broken away.
Pump #1 - Quiet and no vibration noted. Draw down good.
Pump #2 - Noisy, vibration to top. Pump requires maintenance. Draw down good.
Two floats with a level sensor.
Alarm system attached to panel. Light and panel seem to be relatively new.

DATE OF INSPECTION

9/8/22

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.08 15:18:57 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #21"/>	YEAR BUILT		<input type="text"/>	
NAME	<input type="text" value="Main Office"/>				
ADDRESS	<input type="text" value="2402 Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3127.060"/>		Pump 2 Model #		<input type="text" value="3127.060"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>
SERIAL #		<input type="text" value="2040188"/>		SERIAL #		<input type="text" value="2040135"/>	
RATED POWER	<input type="text" value="10"/>	IMPELLAR MODEL	<input type="text" value="487"/>	RATED POWER	<input type="text" value="10"/>	IMPELLER MODEL	<input type="text" value="487"/>
FLOATS		<input type="text" value="4"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2021"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2021"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>
CONDITION ASSESSMENT							
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR		
Age (years)	<input type="checkbox"/> < 5	<input type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20		
Vibration	<input type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major		
Temperature	<input type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch		
Noise	<input type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud		

INSTRUMENTATION & CONTROLS					
I&C #	<input type="text"/>				
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>	
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>	
DESCRIPTION	<input type="text"/>				
MAKE	<input type="text" value="Surfline"/>	MODEL	<input type="text"/>		
SERIAL	<input type="text"/>	YEAR	<input type="text"/>		
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	860 x 1300 (single hatch)		YEAR INSTALLED			
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input checked="" type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Cover and frame for chamber extremely rusty. Handles are loose.
Top of chamber approximately 200mm above grade. Concrete around chamber extremely corroded.
Concrete pedestal in good shape but visibly worn. Alarm system attached.
Panel box in good condition. Installed 2003-2005. Power metre in same enclosure.
Inside of chamber in good condition. Float wires and chains in good shape. Guide bars rusty near operating surface. Small amount of grease build up near the bottom. Discharge pipe is rusty. Valves located in wet-well but not operable (difficult to access). An approximately 100mm overflow pipe drains to the Northeast.
Pump #1 - 14760.4 hrs, quiet.
Pump #2 - 459 hours, quiet.
Gooseneck under panel box for ventilation.

DATE OF INSPECTION

9/8/22

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.08 15:37:45 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #22"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Havenwood Drive"/>				
ADDRESS	<input type="text" value="3 Havenwood Drive"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input type="checkbox"/>	NONE <input checked="" type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP					
PUMP 1 Model #	<input type="text" value="3085.183"/>		Pump 2 Model #	<input type="text" value="3085.183"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>	PUMP TYPE	<input type="text" value="Submersible"/>
SERIAL #	<input type="text" value="2080021"/>		SERIAL #	<input type="text" value="2110105"/>	
RATED POWER	<input type="text" value="3"/>	IMPELLAR MODEL	<input type="text" value="473"/>	RATED POWER	<input type="text" value="3"/>
FLOATS	<input type="text" value="4"/>		FLOATS	<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2021"/>	DISCHARGE DIA (mm)	<input type="text"/>
				INST. YEAR	<input type="text" value="2021"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	Surfline		MODEL	9015
SERIAL	<input type="text"/>		YEAR	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	800 x 550 (dual hatch)		YEAR INSTALLED			
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Pump #1 - quiet

Pump #2 - very quiet.

Wet well is cast in place concrete. Looks new inside. Four floats, chains and guide bars all in good condition. No rust on hatch covers. PVC vent pipe and new disconnect installed.

Lift station receives backwash from water treatment plant.

Pump 1 - hour monitor being replaced but not active at the time of inspection.

Panel mounted to concrete wet-well. Small amount of surface rust on door of panel box. Inside in good condition.

DATE OF INSPECTION

9/8/22

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.08 15:57:02 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #23"/>	YEAR BUILT		<input type="text"/>	
NAME	<input type="text" value="Maitland Road"/>				
ADDRESS	<input type="text" value="2848A Highway 2"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input checked="" type="checkbox"/>	NONE <input type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3153.181"/>		Pump 2 Model #		<input type="text" value="3153.181"/>	
PUMP TYPE	<input type="text" value="Submersi"/>	MAKE	<input type="text" value="FlyGT"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>
SERIAL #		<input type="text" value="1010138"/>		SERIAL #		<input type="text" value="1010139"/>	
RATED POWER	<input type="text" value="20"/>	IMPELLAR MODEL	<input type="text" value="433"/>	RATED POWER	<input type="text" value="20"/>	IMPELLER MODEL	<input type="text" value="433"/>
FLOATS		<input type="text" value="2"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2009"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2009"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input checked="" type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input type="checkbox"/> No unusual noise	<input checked="" type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	Siemen	MODEL	<input type="text"/>	
SERIAL	<input type="text"/>	YEAR	<input type="text"/>	

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input checked="" type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2900"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text" value="1940 x 1040 (dual hatch)"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input checked="" type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Precast pedestal in great condition. Panel box in great condition as well as metre box. EYS installed on three pieces of conduit running to panel box, other four do not have EYS installed. Adapter installed to plug-in generator for backup power. Inflow pipe with a splash plate and a outflow with a splash plate. Two floats and two level sensors. Guide bars and chains in good condition. Wet-well has overflow but unknown where overflow drains.

Insulation exposed around wet-well chamber. No rust on hatch cover. Chamber built in a raised grade to be protected from flooding. Valve chamber cover raised as well, however was not inspected as the lock was broken.

Pump #1 - Noisy.
Pump #2 - Some noise.

200mm automatic air intake entering chamber. 200mm ventilation pipe exiting chamber.

DATE OF INSPECTION

9/8/22

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.08 16:11:23 -03'00'



LIFT STATION INSPECTION FORM

Project Name: Project No:

Reviewer's Name: Date:

Material Delivered: Location:

PUMPING STATION					
PS ID	<input type="text" value="L.S #24"/>		YEAR BUILT	<input type="text"/>	
NAME	<input type="text" value="Burgess Road"/>				
ADDRESS	<input type="text" value="44 Burgess Road"/>				
TYPE	SUBMERSIBLE <input checked="" type="checkbox"/>	DRYWELL <input type="checkbox"/>	SUCTION LIFT <input type="checkbox"/>	SCREW PUMP <input type="checkbox"/>	OTHER <input type="checkbox"/>
BUILDING?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	VALVES?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
SCADA?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>	# OF PUMPS?	<input type="text" value="2"/>	
RATED CAPACITY (L/S)	<input type="text"/>		PEAK CAPACITY (L/S)	<input type="text"/>	
WETWELL INV EL (m)	<input type="text"/>		OVERFLOW?	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
POWER TYPE	SINGLE <input type="checkbox"/>	3-PHASE <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>	<input type="text"/>	
BACKUP POWER ON-SITE?	GEN. <input type="checkbox"/>	ADAPTER <input checked="" type="checkbox"/>	NONE <input type="checkbox"/>	<input type="text"/>	
SOFT START	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>	<input type="text"/>		

PUMP							
PUMP 1 Model #		<input type="text" value="3153.181"/>		Pump 2 Model #		<input type="text" value="3153.181"/>	
PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>	PUMP TYPE	<input type="text" value="Submersible"/>	MAKE	<input type="text" value="FlyGT"/>
SERIAL #		<input type="text" value="1010119"/>		SERIAL #		<input type="text" value="1010120"/>	
RATED POWER	<input type="text" value="20"/>	IMPELLAR MODEL	<input type="text" value="463"/>	RATED POWER	<input type="text" value="20"/>	IMPELLER MODEL	<input type="text" value="463"/>
FLOATS		<input type="text"/>		FLOATS		<input type="text"/>	
DISCHARGE DIA (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2009"/>	DISCHARGE DIA. (mm)	<input type="text"/>	INST. YEAR	<input type="text" value="2020"/>



LIFT STATION INSPECTION FORM

HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>	HEAD (m)	<input type="text"/>	CAPACITY (L/S)	<input type="text"/>
H-H ELEV.	<input type="text"/>	H ELEV.	<input type="text"/>	H-H ELEV.	<input type="text"/>	H-ELEV.	<input type="text"/>
L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>	L-L ELEV.	<input type="text"/>	L-ELEV.	<input type="text"/>

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (years)	<input type="checkbox"/> < 5	<input checked="" type="checkbox"/> 5 – 10	<input type="checkbox"/> 10 – 15	<input type="checkbox"/> 15 – 20	<input type="checkbox"/> ≥ 20
Vibration	<input checked="" type="checkbox"/> None	<input type="checkbox"/> Minor	<input type="checkbox"/> Moderate	<input type="checkbox"/> Considerable	<input type="checkbox"/> Major
Temperature	<input type="checkbox"/> No unusual heat	<input type="checkbox"/> Minimal heat by touch	<input type="checkbox"/> Heat detected by touch	<input type="checkbox"/> Uncomfortable to touch	<input type="checkbox"/> Too high to touch
Noise	<input checked="" type="checkbox"/> No unusual noise	<input type="checkbox"/> Slight whine/rattle	<input type="checkbox"/> Moderate whine/rattle, easily heard	<input type="checkbox"/> Loud whine/rattle	<input type="checkbox"/> Disturbingly loud

INSTRUMENTATION & CONTROLS

I&C #	<input type="text"/>			
TYPE	PANEL <input checked="" type="checkbox"/>	FLOW <input type="checkbox"/>	LEVEL <input type="checkbox"/>	GAS <input type="checkbox"/>
	TEMP <input type="checkbox"/>	PRESSURE <input type="checkbox"/>	CHEM <input type="checkbox"/>	OTHER <input type="checkbox"/>
DESCRIPTION	<input type="text"/>			
MAKE	<input type="text" value="Siemens"/>	MODEL	<input type="text"/>	
SERIAL	<input type="text"/>	YEAR	<input type="text"/>	

CONDITION ASSESSMENT

CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input checked="" type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%



LIFT STATION INSPECTION FORM

MISCELLANEOUS HARDWARE					
CHAINS	YES <input type="checkbox"/>	NO <input type="checkbox"/>			
SAFETY GRATING	YES <input type="checkbox"/>	NO <input type="checkbox"/>			
LIFTING DAVIT	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>			
VEHICLE ACCESS	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>			
CONDITION ASSESSMENT					
CRITERIA	VERY GOOD	GOOD	FAIR	POOR	VERY POOR
Age (% of manufacturer's recommended service life)	<input type="checkbox"/> 0 – 34%	<input type="checkbox"/> 35 – 64%	<input type="checkbox"/> 65 – 84%	<input type="checkbox"/> 85 – 99%	<input type="checkbox"/> ≥ 100%

STRUCTURES						
STRUCTURE #						
TYPE	WETWELL <input checked="" type="checkbox"/>	VALVE CHAMBER <input checked="" type="checkbox"/>	OTHER <input type="checkbox"/>			
MATERIAL	CONCRETE <input checked="" type="checkbox"/>	PLASTIC <input type="checkbox"/>	OTHER <input type="checkbox"/>			
DIMENSIONS	DIA.	<input type="text" value="2900"/>	LENGTH	<input type="text"/>	HEIGHT	<input type="text"/>
COVER DIA. (MM)	<input type="text"/>		YEAR INSTALLED	<input type="text"/>		
CONDITION ASSESSMENT						
CRITERIA	VERY GOOD <input type="checkbox"/>	GOOD <input type="checkbox"/>	FAIR <input type="checkbox"/>	POOR <input type="checkbox"/>	VERY POOR <input type="checkbox"/>	
Visual Observations	No signs of concrete/brick damage, cover and frame look great. No leaking evident.	No visual concrete/brick damage, minor signs of wear on cover and frame. No leaking evident.	Minor concrete/brick damage no gaps or exposed rebar, minor cracking on frame and cover.	Significant concrete/brick damage with cracks greater than 6mm. Cracks greater than 6mm or missing pieces from frame and cover.	Very poor - critical condition. Excessive concrete/brick damage, exposed rebar, frame, and cover missing or not safe for use.	



LIFT STATION INSPECTION FORM

CONDITION COMMENTS

Three chambers on site. Wet-well, valve chamber and possible overflow.
Panel and metre box in good condition. Some rust on doors. EYS installed on conduit underneath both enclosures. Adapter installed to plug-in generator for backup power. Alarm system installed.
Locks not working on wet-well and valve chamber. Overflow chamber has water but no inflow pipes. Chamber also has two floats.
Activated pumps and listened with hatch closed. No noise or vibration observed.
Pump #1 - 20,620 hrs
Pump #2 - 5,946.2 hrs
Stainless steel ventilation fan only able to operate in low or high. No option to turn off, similar to Donaldson Ave.
Wet-well above flood plain.
No rust or damage on hatch covers or outside of chambers.

DATE OF INSPECTION

9/8/22

INSPECTOR

M. Keeping

SIGNATURE

Matthew Keeping

Digitally signed by Matthew Keeping
Date: 2022.09.08 16:23:50 -03'00'

APPENDIX B

Field Photos



LS #1: Peter Horne Station: Pedestal & Control Panel



LS #1: Peter Horne Station - Inside of Wet-Well



LS #1: Peter Horne Station - Inside of Control Panel



LS #2: Sherwood Park - Control Panel & Pedestal



LS #2: Sherwood Park - Safety Grating



LS #2: Sherwood Park - Control Panel



LS #3: Horne Settlement - Control Panel



LS #3: Horne Settlement – Inside of Wet-well



LS #4: Donaldson Ave - Control Panel



LS #4: Donaldson Ave - Inside of Wet-Well



LS #5: Locks Road - Inside of Wet-Well



LS #5: Locks Road - Control Panel



LS #7: Curley Portables - Inside of Wet-Well



LS #7: Curley Portables - Control Panel inside of building



LS #8: Mill – Site



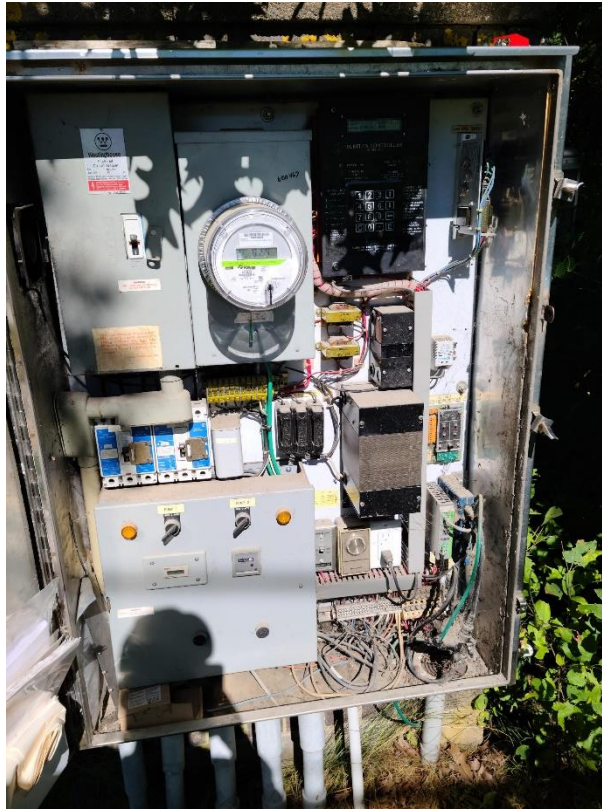
LS #8: Mill - Inside of Valve Chamber



LS #9: Firehall - Damaged hatch cover



LS #9: Firehall - Inside of Wet-Well



LS #9: Firehall - Control Panel



LS #9: Firehall - Pedestal in need of repair



LS #10: Medical Centre - Pedestal and Control Panel Enclosure



LS #10: Medical Centre - Inside of Wet-Well



LS #10: Medical Centre - Control Panel



LS #10A: Pine Grove: Control Panel



LS #10A: Pine Grove - Inside of Wet-Well



LS #11: Old Elmsdale School - Wet-Well hatch cover in roadway



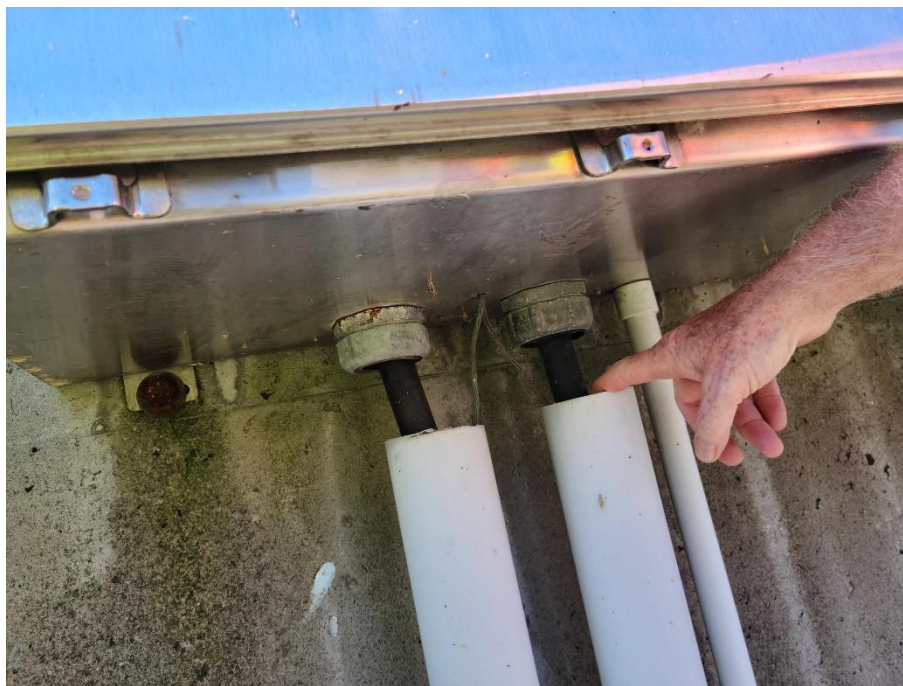
LS #11: Old Elmsdale School - Control Panel



LS #11: Old Elmsdale School – Pedestal



LS #11A: Industrial Park - Pedestal and Control Panel Enclosure



LS #11A: Industrial Park - Conduit not properly sealed



LS #11A: Industrial Park - Inside of wet-well. Note blowout from leaking check valve



LS #11A: Industrial Park - Control Panel



LS #11A: Industrial Park - Broken Hinge



LS #11B: Carmies Daycare - Valve chamber and wet-well



LS #11B: Carmies Daycare - Control Panel & Pedestal



LS #11B: Carmies Daycare - Inside of Wet-Well



LS #11C: Park Road Extension - Pedestal & Control Panel



LS #11C: Park Road Extension - Inside of Wet-Well



LS #12: Elmsdale Legion – Pedestal & detached ventilation pipe



LS #12: Elmsdale Legion - Inside of Wet-Well



LS #12: Elmsdale Legion - Control Panel



LS #13: Lantz Cemetery – Site



LS #13: Lantz Cemetery - Inside of Wet-Well



LS #13: Lantz Cemetery - Control Panel



LS #14: Sportsplex - Inside of Wet-Well



LS #14: Sportsplex: Control Panel



LS #14: Sportsplex - Inside of Valve Chamber



LS #14: Sportsplex - Pedestal with detached ventilation pipe



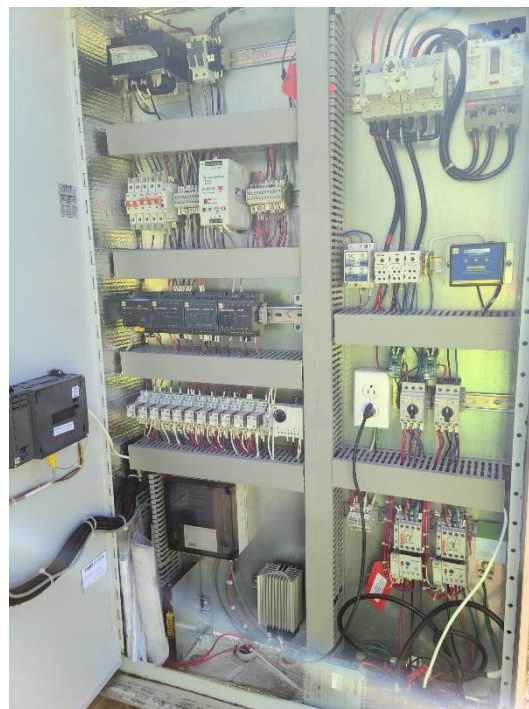
LS #15: Poplar Drive - Control Panel



LS #15: Poplar Drive - Pedestal with hanging alarm light



LS #15: Poplar Drive - Inside of Wet-Well



LS #16: Paley Road - Control Panel



LS #16: Paley Road - SCADA mast attached to brick pedestal



LS #16: Paley Road - Pedestal damage



LS #17: Old Public Works Shed - Pedestal damage



LS #17: Old Public Works Shed - Control Panel



LS #17: Old Public Works Shed - Inside of Wet-Well



LS #18: Barney Brook - Loose guide rail bracket



LS #18: Barney Brook - Pedestal with rusty ventiation pipe



LS #18: Barney Brook - Control Panel



LS #18: Barney Brook - Inside of Wet-Well



LS #19: Isenor Road – Pedestal



LS #19: Isenor Road - Control Panel



LS #19: Isenor Road - Inside of Valve Chamber



LS #19: Isenor Road - Inside of Wet-Well



LS #20: Ross' Hill - Damaged pedestal and rusty ventilation pipe



LS #20: Ross' Hill - Control Panel and unlockable electrical box



LS #20: Ross' Hill - Concrete eroded from around ventilation pipe



LS #20: Ross' Hill - Inside of Wet-Well



LS #21: Main Office - Rusted hatch cover



LS #21: Main Office - Control Panel



LS #22: Havenwood Road - Conduit from wet-well to control panel



LS #22: Havenwood Road - Control Panel



LS #22: Havenwood Road - Inside of Wet-Well



LS #23: Maitland Road: Conduit entering control panel



LS #23: Maitland Road - Control panel



LS #23: Maitland Road - Inside of Wet-Well



LS #24: Burgess Road – Monitor Panel and Power Meter



LS #24: Burgess Road - Control Panel

APPENDIX C

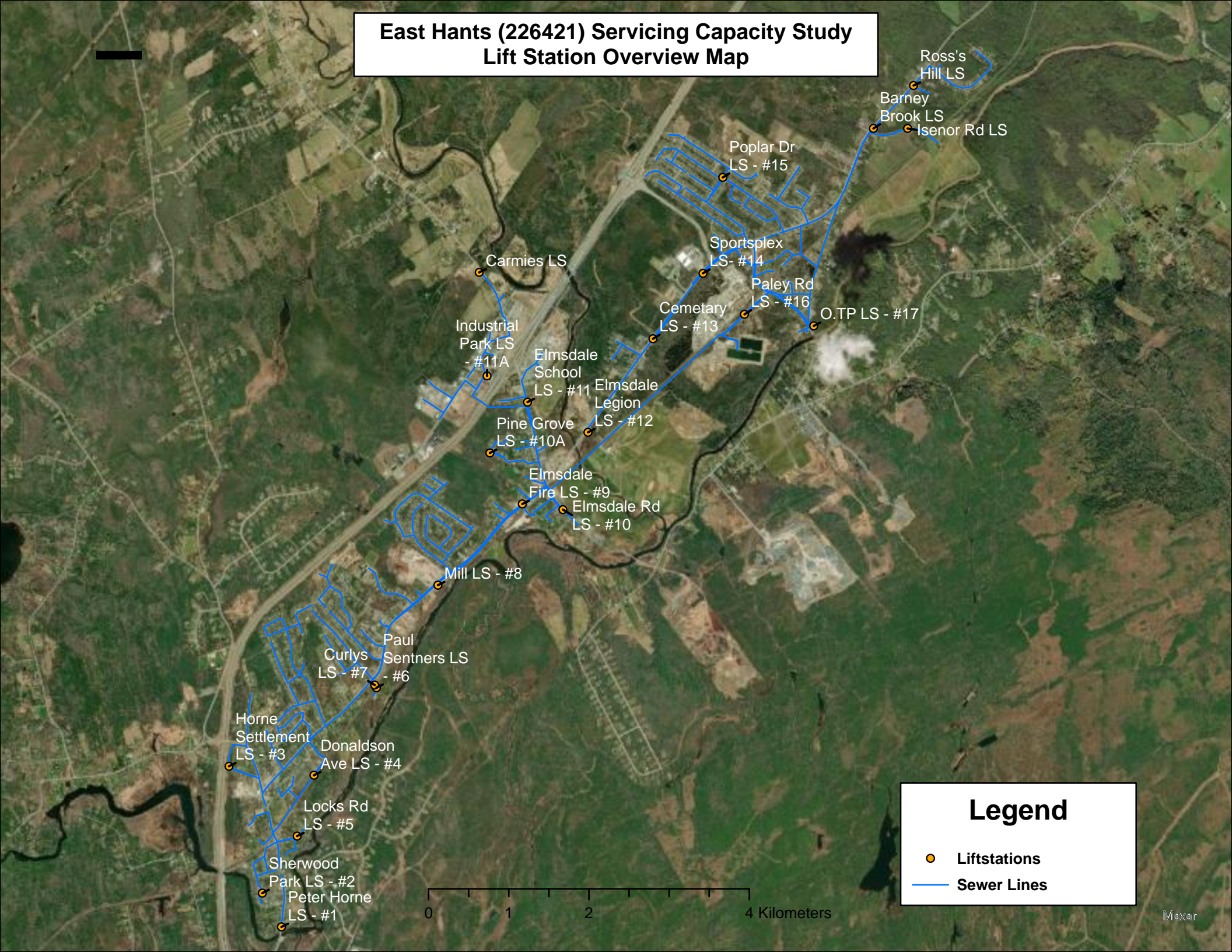
Lift Station Forecasted Replacement

Municipality of East Hants Lift Station List																			
LS No.	Address	Common Name	Pump #1		Pump #2		Last Service	Pump Life (years)	Wet-Well Hardware Age	Wet-Well Hardware Life (years)	Control Panel Installation Year	Control Panel Life (years)	Pump Replacement Cost (Per QTY 1 Pump)	Wet-Well Hardware Replacement Cost (Per Station)	Control Panel Replacement Costs	Misc. Replacement Costs	Total Replacement Cost	Comments	
			Model	Year	Model	Year													
1	102 Highway 2	ENF	Peter Horne	NP 3102.060	2021	CP 3102.160	2015	2021	20-25	1997	30	1997	30-35			\$5,000.00	\$5,000.00	Install new pedestal and explosion proofing.	
2	32 Sherwood Drive	ENF	Sherwood Park	3102.095	2017	3102.095	2017	2022	20-25	2020	30	2020	30-35	\$20,500.00		\$20,500.00	\$20,500.00	Perform maintenance on Pump #2. Replace hardware in wet-well.	
3	20 Old Horne Settlement Road	ENF	Horne Settlement	NP 3102.060	1996	CP 3102.060	2022	2022	20-25	1996	30	1996	30-35	\$12,100.00		\$1,000.00	\$13,100.00	Replace hinge on cover. Seal inside of wet-well.	
4	21 Donaldson Avenue	ENF	Donaldson Avenue	NP 3171.181	2008	NP 3171.180	2008	2020	20-25	1992	30	1992	30-35			\$0.00	\$0.00	Perform maintenance on Pump #2 and air ventilation.	
5	6A Locks Road	ENF	Locks Road	DP 3085.183	2008	DP 3085.183	2017	2021	20-25	1991	30	1991	30-35			\$2,500.00	\$2,500.00	Install explosion proofing. Clear valves.	
7	453A Highway 2	ENF	Curly Portables	NP 3301.180	2016	NP 3301.185	2019	2022	20-25	1989	30	1989	30-35	\$1,500.00		\$2,500.00	\$4,000.00	Replace lifting chains. Flush/clean wet-well.	
8	595 Highway 2	ELM	Mill (Elmsdale Lumber)	NP 3202.180	2011	NP 3201.180	1989	2022	20-25	1989	30	?	30-35	\$68,200.00	\$28,750.00	\$1,000.00	\$97,950.00	Replace Pump #2. Install explosion proofing.	
9	730 Highway 2	ELM	Elmsdale Fire Hall	CP 3152	N/A	NP 3153.181	2015	2021	20-25	?	30	?	30-35			\$500.00	\$500.00	Repair pedestal.	
10	104 Elmsdale Road (Hwy 214)	ELM	Medical Center	CP 3152.181	N/A	NP 3153.181	2009	2022	20-25	?	30	?	30-35			\$5,000.00	\$5,000.00	Replace pedestal. Repair security bar.	
10A	81 Pinehill Drive	ELM	Pine Grove	NP 3102.160	2018	NP 3102.060	2019	2019	20-25	1988	30	1988	30-35			\$10,000.00	\$10,000.00	Maintenance on valves.	
11	235 Elmsdale Road (Hwy 214)	ELM	Old Elmsdale School	NP 3127.185	2016	NP 3127.160	2016	2020	20-25	?	30	?	30-35		\$22,500.00	\$40,000.00	\$1,000.00	\$63,500.00	Replace control panel. Maintain wet-well.
11A	12 Industrial Way	ELM	Industrial Park	CP 3152.181	N/A	NP 3153.181	2015	2015	20-25	?	30	?	30-35		\$25,000.00	\$1,500.00	\$26,500.00	Repair check valve. Perform maintenance on Pump #2.	
11B	416 Elmsdale Road (Hwy 214)	ELM	Carmies Day Care	NP 3127.181	2015	NP 3127.181	2015	2016	20-25	2005	30	2005	30-35			\$0.00	\$0.00	Perform maintenance on Pump #2.	
11C	279 Park Road	ELM	Park Road Extension	NP 3127.190	2013	NP 3127.190	2013	No Service	20-25	?	30	?	30-35			\$0.00	\$0.00	Monitor water in valve chamber.	
12	849 Highway 2	ELM	Elmsdale Legion	NP 3127.060	2021	NP 3127.060	2021	2021	20-25	?	30	?	30-35			\$500.00	\$500.00	Repair pedestal.	
13	984 Highway 2	LTZ	Lantz Cemetery	CP 3152.181	1989	CP 3152.181	1989	2017	20-25	1989	30	1989	30-35	\$57,500.00		\$57,500.00	\$57,500.00	Replace both pumps.	
14	1070 Highway 2	LTZ	Sportsplex	NP 3201.180	1990	NP 3202.185	2020	2019	20-25	1990	30	1990	30-35	\$68,200.00		\$5,000.00	\$73,200.00	Replace pedestal and Pump #1.	
15	50A Poplar Drive	LTZ	Poplar Drive	NP 3102.181	2008	NP 3102.181	2008	2021	20-25	?	30	?	30-35			\$5,000.00	\$5,000.00	Install explosion proofing. Repair pedestal and valve chamber cover. Adjust elevation of floats.	
16	21 Paley Drive	LTZ	Paley Road	CP 3085.183	1996	NP 3085.183	2016	2020	20-25	1996	30	1996	30-35	\$9,300.00		\$1,500.00	\$10,800.00	Replace Pump #1. Repair pedestal and hatch cover.	
17	201 Highway 277	LTZ	Old Public Works Shed	CP 3153.185	2020	CP 3152.181	1990	2018	20-25	1990	30	1990	30-35	\$28,750.00		\$1,500.00	\$30,250.00	Replace Pump #2. Repair pedestal and concrete inside of wet-well.	
18	1369 Highway 2	LTZ	Barneys Brook	NP 3153.181	2016	CP 3153.185	2022	2022	20-25	?	30	?	30-35		\$25,000.00	\$5,000.00	\$30,000.00	Install new pedestal, explosion proofing, and wet-well hardware.	
19	43 Isenor Road	LTZ	Isenor Road	NP 3185.070	2020	NP 3082.180	2020	2020	20-25	2020	30	2020	30-35			\$1,000.00	\$1,000.00	Repairing opening in concrete slab under panel and seal between risers in valve chamber.	
20	1457 Highway 2	LTZ	Ross' Hill	CP 3102.180	1997	NP 3102.181	2007	2018	20-25	1991	30	?	30-35	\$12,100.00	\$5,000.00	\$5,000.00	\$22,100.00	Replace Pump #1. Perform maintenance on Pump #2. Repair concrete around ventilation pipe. Replace pedestal.	
21	2402 Highway 2	MIL	Main Office	NP 3127.060	2021	NP 3127.060	2021	2021	20-25	?	30	?	30-35		\$22,500.00		\$22,500.00	Most of equipment requires refurbishment due to rust and corrosion.	
22	8 Havenwood Drive	SHU	Havenwood Road	DP 3085.183	2021	DP 3085.183	2021	No Service	20-25	1988	30	?	30-35			\$0.00	\$0.00	No repairs needed.	
23	2848A Highway 2	SHU	Maitland Road	NP 3153.181	2009	NP 3153.181	2009	2022	20-25	1992	30	?	30-35			\$7,500.00	\$7,500.00	Install explosion proofing. Replace lock on valve chamber cover	
24	44 Burgess Road	SHU	Burgess Road	NP 3153.181	2009	NP 3153.181	2020	2020	20-25	?	30	2010	30-35			\$0.00	\$0.00	No repairs needed.	
													\$256,150.00	\$150,750.00	\$40,000.00	\$62,000.00	\$508,900.00		



APPENDIX D

Lift Station Mapping

East Hants (226421) Servicing Capacity Study Lift Station Overview Map



Legend

-  Liftstations
-  Sewer Lines

0 1 2 4 Kilometers