

Appendix A

Wastewater Services Operational Shutdown Summary

Branch	Document #	Location of Shutdown	Date of Shutdown
Engineering		Hawthorne WWPS	TBD

Section 1: Purpose

Describe the purpose of the planned shutdown.

To allow for the reconfiguration and connection of piping in the north valve chamber at Fraser's Grove Park to the new river crossing force main.

Section 2: Stakeholders

List all relevant stakeholders that will be involved or at a minimum, must be kept informed, of the shutdown and related activities.

Nick Clinch	City of Winnipeg – Wastewater Ops	204-XXX-XXXX
Jose Altoveros	City of Winnipeg – Wastewater Ops	204- XXX-XXXX
Andrew McMillan	City of Winnipeg – Wastewater Ops	204- XXX-XXXX
SCADA Control	24hr Emergency call-out	204- XXX-XXXX
SCADA Control	24hr Emergency call-out	204- XXX-XXXX
Ryan Lucky	City of Winnipeg – City Project Manager	306- XXX-XXXX
Mike Agliam	City of Winnipeg – City Inspector	204- XXX-XXXX
Ray Offman	KGS – Project Manager	204- XXX-XXXX
Tristan Eldridge	KGS – Contract Administrator	204- XXX-XXXX
Jonah Greenberg	KGS – Resident CA	204- XXX-XXXX
TBD	Contractor	TBD
TBD	Contractor	TBD
TBD	Contractor	TBD
TBD	Contractor	TBD

Section 3: Risks and Contingency Planning

List all potential risks associated with the planned shutdown. Develop contingency plans to address risks. Hit tab in lowest right cell to add additional lines.

Risk	Contingency Plan
Spill to Environment	Continuous monitoring of wastewater level in MH40001960 during PS shutdown.
	Confirmation of dry weather flow conditions and review of the weather forecast. Pump Station shutdown is not to commence and be postponed if wet weather events are anticipated or if flows are higher than normal.
	Monitor levels at MH40001960 to ensure a level of 225.0m is not exceeded (0.4 m below the lowest basement).



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<p>Spike in Flow</p>	<p>If higher than normal flows are encountered during the pump station shutdown:</p> <ul style="list-style-type: none"> • Notify KGS and City operations staff on site. City crew or KGS to contact SCADA control. <ul style="list-style-type: none"> ○ City crews to be on standby to open the positive gate. ○ (Contractor) to be on standby to deflate the inflatable plug.
	<p>Once the existing tee has been removed, Contractor to evaluate the remaining shutdown window, and determine if the remaining work can be safely completed.</p> <p>If higher than normal flows are encountered and insufficient time remains, (Contractor) to re-instate pump station operation as detailed below:</p> <p>Prior to the commencement of piping disassembly:</p> <ul style="list-style-type: none"> • If levels at the PS monitoring point do not recede or continue to rise: <ol style="list-style-type: none"> a. Be prepared to open the positive gate (City) and remove the inflatable plug (Contractor) prior to levels reaching 225.0 m. b. Once they are near reaching 225.0 m, open the positive gate and deflate the 1800mm inflatable plug. (Contractor, City) c. City crew or KGS to report CSO to SCADA control. <p>After the commencement of piping disassembly:</p> <ul style="list-style-type: none"> • If the piping can be reinstated within a reasonable time frame: <ol style="list-style-type: none"> a. Assess if the piping can be put back into service prior to hitting the critical elevation of 225.0 m. An assessment of the water rise rate against the remaining freeboard should be made to understand the remaining operating window. Please note, that the levels will begin to rise faster as the levels come up due to diminishing storage volumes. <ol style="list-style-type: none"> i. If the piping can be reinstated within a reasonable time frame,



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	<p>continue with the work, and monitor the flows and levels.</p> <ol style="list-style-type: none">ii. Once the piping has been reassembled, reinstate pump station operations. <ul style="list-style-type: none">● If the piping cannot be reinstated within a reasonable time frame:<ol style="list-style-type: none">a. Clear the chamber of all tools, equipment, and personnel. Anything that could be transported down the piping below the river is to be removed. Heavy objects (e.g. valves) can remain. (Contractor)b. Confirm force main valves at the upstream valve chamber are in the correct configuration to initiate pump station operation. (City)<ol style="list-style-type: none">i. The 300 mm gate valve between existing valve chambers MUST BE OPEN.ii. Confirm 350 mm knife gate on the existing north valve chamber force main is open or removed.c. Reinststate pump station operations. (City)<ol style="list-style-type: none">i. The existing valve chamber is to be utilized as a gravity manhole and the flows are siphoned by gravity across the river.ii. Levels in the valve chamber should be monitored to ensure they do not exceed the rim elevation of the chamber (≈ 1 m of freeboard is predicted) (Contractor, City)<ul style="list-style-type: none">○ Confirm that both pumps at the Hawthorne Pump Station (maximum flow condition) are running while monitoring levels. Continuous monitoring is recommended.d. Continue to monitor levels in the upstream system.<ol style="list-style-type: none">i. If levels do not recede or continue to rise:
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	<ol style="list-style-type: none"> 1. Be prepared to open the positive gate (City) and remove the inflatable plug (Contractor) prior to levels reaching 225 m. 2. Once they are near reaching 225 m, open the positive gate and deflate the inflatable plug. (Contractor, City) 3. City crew or KGS to report CSO to SCADA control.
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Section 4: Shutdown Plan

Outline the shutdown plan. Include all related tasks, timelines, communication planning, etc.

Prior to pump station shutdown:

- Confirm the 350 mm knife gate on the existing steel (south) force main is open. **(City)**
- Confirm the 300 mm gate valve between existing siphon valve chambers is closed. **(City)**

When work is complete:

- Confirm the 300 mm gate valve between existing siphon valve chambers is closed. **(City)**
- Confirm 350 mm knife gate on the new HDPE (north) force main is open. **(City/Contractor)**
- Hawthorne Pump Station start-up. **(City)**
- Check for leaks within the upstream valve chamber. **(Contractor)**

Once levels have receded to below the weir elevation (224.27):

- Pump trapped water from between the sluice gate and weir at Hawthorn Pump Station. **(Contractor)**
- Once water is removed, remove the 1800 mm inflatable plug. **(Contractor)**
- **Contractor** to capture all water not pumped out with a Hydrovac truck.
- Open positive gate at the Hawthorn Flood Pumping Station. **(City)**

See the detailed step-by-step (Contractor)'s Plan below: **TO BE SUBMITTED**

Section 5: Monitoring
<i>Describe any monitoring required leading up to, during, and following the shutdown.</i>
Contractor is to mark critical elevation in MH40001960 and to be on-site for the entire shutdown operation to continuously monitor the wastewater level in MH40001960.

Section 6: Key Data
<i>Describe data required for shutdown planning and monitoring purposes.</i>
<ul style="list-style-type: none"> • Shutdown of Hawthorne PS: 10 pm • Approximate shutdown window: 12 hours • Approximate time for wastewater to drain to the valve chamber: 1 hour • Approximate working window: 11 hours • Low basement elevation: 225.4m • Levels not to be exceeded at Hawthorne PS: 225.0m (0.4m below lowest basement) • Hawthorne PS diversion weir elevation: 224.27m • Hawthorne PS MH Asset ID/Rim Elevation: MH40001960, 229.12m (to be confirmed) <p>Confirmation of dry weather flow conditions and review of the weather forecast. Pump Station shutdown is not to commence and be postponed if wet weather events are anticipated or if flows are higher than normal.</p>

Section 7: Lessons Learned	
<i>Once shutdown is complete, meet with relevant stakeholders to review the shutdown. List what went well and what should be changed for future shutdowns.</i>	
What went well?	What should be changed for future shutdowns?

Section 8: Document Close	
Closed by:	Date:



Water and Waste Department
Wastewater Services Division

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