

Town of Fraser - SCADA Master Plan

May 9, 2019

Priority	Site	Issue	Comments	Cost	Implementation Date	Century Link	Verizon Cellular
1	Yellow Zone Tank	Yellow Zone Tank Communications are not reliable with existing serial radio connection to Town Hall	Internet Connection at YZT		Completed 2019		X
2	Maryvale WTP	Install Internet connection to receive Yellow Zone Tank Communications			Completed 2019	X	
3	Maryvale WTP/YZT	Modify Communications to allow Yellow Zone Tank Level to go directly to Maryvale WTP. Modify HMI to receive YZT Tank Level from Maryvale WTP			Completed 2019		
4	Well 8	Install Internet Connection for direct communications with other sites.	Included in Well 8 Rehab	Included in Well 8 Rehab	Planned for Aug. 2019 Refer to Quote 18-023 SQ01		X
5	Fraser WTP	Install Internet Connection for direct communications with other sites.	Fraser WTP internet connection will be shared with Well 2	\$3,633	Approval of Quote 19-023 SQ17	X	
6	Blue Zone Tank	Install Internet Connection for direct communications with other sites.		\$3,052	Approval of Quote 19-023 SQ18		X
7	Fraser WTP/BZT	Modify Communications to allow Blue Zone Tank Level to go directly to Fraser WTP. Modify HMI to receive BZT Level from Fraser WTP		\$1,500	Approval of Quote 19-023 SQ19		
8	Green Zone PS	Install Internet Connection for direct communications with other sites.		\$3,640	Approval of Quote 19-023 SQ09	X	
9	Red Zone PS	Install Internet Connection for direct communications with other sites.		\$3,640	Approval of Quote 19-023 SQ10	X	
10	Green Zone PS	Reprogram Green Zone PLC to obtain YZT and GZT Levels directly from these tanks for Pump Station Control. Modify Green Zone OIT to display data directly from Maryvale WTP & Red Zone PS		\$1,808	Approval of Quote 19-023 SQ11		
11	Red Zone PS	Modify Red Zone OIT to display data directly from Maryvale WTP & Green Zone PS		\$950	Approval of Quote 19-023 SQ12		
12	Town Hall/ Maryvale WTP	Revise communications failure alarming for updated communications paths. Modify Maryvale OIT to display data directly from Green Zone PS & Red Zone PS		\$2,068	Approval of Quote 19-023 SQ13		
13	Town Hall HMI	Modify existing HMI configuration for direct access to Maryvale WTP, GZPS, RZPS PLCs. Update OIT and HMI setpoint tags for direct access. Remove PLC messaging at Town Hall		\$6,580	Approval of Quote 19-023 SQ14		
14	Well 1	Existing PLC is scheduled for End of Life in 2021 and does not support Ethernet communications. Replace existing PLC. Install Internet Connection and VPN for direct communications with other sites. Modify Fraser WTP PLC/OIT and Town Hall HMI computer for direct communications with Well.	Well 1 internet connection will be shared with Well 3B	\$10,500	Approval of Quote 19-023 SQ15		X

15	Well 2	Existing PLC is scheduled for End of Life in 2021 and does not support Ethernet communications. Replace existing PLC. Install Internet Connection and VPN for direct communications with other sites. Modify Fraser WTP PLC/OIT and Town Hall HMI computer for direct communications with Well.	Well 2 will utilize radio connection to access internet connection at Fraser WTP	\$10,500	Approval of Quote 19-023 SQ16		
16	Well 3B	Existing PLC is scheduled for End of Life in 2021 and does not support Ethernet communications. Replace existing PLC. Install Internet Connection and VPN for direct communications with other sites. Modify Fraser WTP PLC/OIT and Town Hall HMI computer for direct communications with Well.	Well 3B will utilize radio connection to access internet connection at Well 1	\$10,500	Similar to Quote 19-023 SQ16		
17	Well 5R	Existing PLC is scheduled for End of Life in 2021 and does not support Ethernet communications. Replace existing PLC. Install Internet Connection and VPN for direct communications with other sites. Modify Fraser WTP PLC/OIT and Town Hall HMI computer for direct communications with Well.		\$10,500	Similar to Quote 19-023 SQ15		X
18	Well 7	Existing PLC is scheduled for End of Life in 2021 and does not support Ethernet communications. Replace existing PLC. Install Internet Connection and VPN for direct communications with other sites. Modify Fraser WTP PLC/OIT and Town Hall HMI computer for direct communications with Well.	Well 7 internet connection will be shared with Well 9	\$10,500	Similar to Quote 19-023 SQ15		X
19	Well 9	Existing PLC is scheduled for End of Life in 2021 and does not support Ethernet communications. Replace existing PLC. Install Internet Connection and VPN for direct communications with other sites. Modify Fraser WTP PLC/OIT and Town Hall HMI computer for direct communications with Well.	Well 9 will utilize radio connection to access internet connection at Well 7	\$10,500	Similar to Quote 19-023 SQ16		
20	Town Hall HMI Computer + Software	Phase 1: Replace existing Genesis-32 software with Ignition software. Installed Locally on new new computer, provided by Town.	Gen-32 will be discontinued in 2020 and existing HMI is due for replacement.	\$21,000	Plan to Implement in 2020		
21	Town Hall HMI Computer + Software	Phase 2: Add Microsoft Azure Cloud Services to provide redundancy	HMI screens can be accessed from Town Hall or Internet	\$8,000	Plan to Implement in 2021		

\$89,871