Minutes – Standing Policy Committee on Finance – April 20, 2021

REPORTS

Item No. 2 Water Supervisory Control and Data Acquisition (SCADA) Upgrade Project ID: 2005100200, Quarterly Project Status Report No. 17 For the Period Ended December 31, 2020

STANDING COMMITTEE DECISION:

The Standing Policy Committee on Finance concurred in the recommendation of the Winnipeg Public Service and approved:

1. That the financial status of the Water Supervisory Control and Data Acquisition (SCADA) Upgrade project, as contained in the report, be received as information.

2. That the next reporting on the Water Supervisory Control and Data Acquisition (SCADA) Upgrade project, occur in 2022 Q2, as opposed to quarterly, given the long project delivery schedule. The project reporting schedule would be as identified in the Major Capital Projects Reporting Schedule.

DECISION MAKING HISTORY:

Moved by Councillor Rollins,

That the recommendation of the Winnipeg Public Service be concurred in.

Carried

ADMINISTRATIVE REPORT

Title: **Water Supervisory Control and Data Acquisition (SCADA) Upgrade, Project ID: 2005100200, Quarterly Project Status Report No. 17 For the Period Ended December 31, 2020**

Critical Path: **Standing Policy Committee on Finance**

AUTHORIZATION

Author	Department Head	CFO	CAO
T. W. Shanks, P. Eng., Manager of Engineering Services	M. L. Geer, CPA, CA, Director, Water and Waste Department	C. Kloepfer	M. Ruta, Interim CAO

EXECUTIVE SUMMARY

Project On Schedule: Yes ☑ No ☐ **Project On Adopted Budget: Yes ☐ No ☑**

Percent of Schedule Complete: 54% **Percent of Adopted Budget Spent:** 19%

During this reporting period, detailed design work under Contract 583-2016 continued. The design team achieved all design milestones on schedule and on budget.

The communication upgrades under Contract 922-2017 were completed at the Tache Booster Pumping Station and the Winnipeg Drinking Water Treatment Plant in February 2020. The work under Contract 922-2017 funded by the Water SCADA Upgrade project is now complete. Tender No. 805-2019 for the implementation phase of the project was posted on July 31, 2020 and closed September 29, 2020. On January 14, 2021, a Contract was awarded to Manco Control Systems Inc. for the work, subsequent to the report period end date.

The project is currently on schedule.

The COVID-19 pandemic emerged as a potential risk to the project during this reporting period. To date, no financial or schedule impacts have occurred due to the COVID-19 pandemic, however this risk continues to be monitored as the situation evolves.

On March 20, 2020, the 2020 Capital Budget was approved which included a $2,690,000.00 increase to the Water SCADA Upgrade project budget and increased the total project budget to $19,115,000.00. The increase included additional funds to account for construction innovation loss that may have been achieved through a design-build project delivery method and project scope and cost increases.

The Advisory Committee has reviewed this report and recommends that the report be sent to the Standing Policy Committee on Finance.

RECOMMENDATIONS

1. That the financial status of the Water Supervisory Control and Data Acquisition (SCADA) Upgrade project, as contained in this report, be received as information.

2. That the next reporting on the Water Supervisory Control and Data Acquisition (SCADA) Upgrade project, occur in 2022 Q2, as opposed to quarterly, given the long project delivery schedule. The project reporting schedule would be as identified in the Major Capital Projects Reporting Schedule.

REASON FOR THE REPORT

The Asset Management Administrative Standard FM-004 requires all projects with a total estimated cost of $24 million (2020) or more report quarterly to the Standing Policy Committee on Finance. This threshold is adjusted annually for construction inflation as part of the annual Capital Budget approval. The Standing Policy Committee on Finance may also request reporting on any capital project.

IMPLICATIONS OF THE RECOMMENDATIONS

That reporting on the Water Supervisory Control and Dada Acquisition (SCADA) Upgrade project be suspended until 2022 Q2.

HISTORY/DISCUSSION

See Appendix C – Key Project Events (History)

Design (Update from last report)

During this reporting period, detailed design work under Contract 583-2016 continued. The design team achieved all design milestones on schedule and on budget. A separate award for the contract administration portion of the work will be required, in accordance with the terms of Contract 583-2016.

Construction (Update from last report)
The communication network upgrades under Contract 922-2017 were completed at the Tache Booster Pumping Station and the Winnipeg Drinking Water Treatment Plant in February 2020. The work under Contract 922-2017 funded by the Water SCADA Upgrade project is now complete.

Tender No. 805-2019 for the implementation phase of the project was posted on July 31, 2020 and closed September 29, 2020. One bid was received from Manco Control Systems Inc. in the amount of $9,321,164.83, GST extra as applicable. The Department and Contract Administrator (Dillon Consulting Ltd.) evaluated Manco Control Systems Inc.'s qualifications and found them to be compliant. A pre-award meeting was held to confirm that Manco Control Systems Inc. had the resources and ability to complete the work as specified in the Tender. Manco Control Systems Inc. provided confirmation that their bid submitted was accurate and that they could complete the project under the terms detailed in the Tender. On January 14, 2021, a Contract was awarded to Manco Control Systems Inc. for the work, subsequent to the report period end date.

Table 1 – Contracts

Contracts							
Bid Opportunity #	**Company Name**	**Description**	**Original Contract Award Value (GST & MRST extra as applicable)**	**Total Approved Over-Expenditures (Over-Expenditure amount only)**	**Date of Award**	**Date of Total Completion**	**Estimated % Complete**
224-2012	SNC-Lavalin Inc.	PLC Replacement and Power Reliability Upgrades Preliminary Design	$ 312,898.00	$ -	7/23/2012	1/31/2014	100%
307-2012	SNC-Lavalin Inc.	Equipment Identification Standard and Electrical Design Guide Development	$ 45,500.00	1,448.00	4/24/2012	11/15/2013	100%
Consultant assignment at or under $35,000	Dillon Consulting Ltd.	Regional SCADA Life Cycle Cost Analysis	$ 35,000.00	-	9/26/2014	2/5/2016	100%
583-2016	Dillon Consulting Ltd.	Owner's Advocate Engineer and Professional Engineering Services for PLC, Regional SCADA and Power Reliability Upgrades - Phase I	$ 509,000.00	1,294,475.55	2/28/2017		80%
922-2017	Shaw Telecom G.P. operating as Shaw Business	Overall Contract: Provision of Transparent LAN Services and Internet Gateway Services - Portion funded by Water SCADA Upgrade: Provision of Fiber Optic Based Transparent LAN Services	$ 315,000.00	-	11/30/2018	2/20/2020	100%
		Total	**$ 1,217,398**	**$ 1,295,924**			

Upcoming Procurements:

Description	Anticipated Award Date
583-2016 Phase II Contract Administration, Post Construction Services, and associated Project Management	2021 Q1
Tender No. 805-2019 - Regional SCADA, PLC and Power Reliability Upgrades	2021 Q1 (awarded Jan 14, 2021, subsequent to report period end date)

Schedule (Update from last report)

The project is currently on schedule as outlined in Table 2.

The constraints on implementation to minimize potential impacts on the water supply system mean that small changes in the schedule can case completion date shifts of up to a year. The project schedule will be adjusted as the project progresses with key schedule reviews anticipated once the Contractor's implementation schedule has been received and upon completion of the Regional SCADA upgrade.

Table 2 – Milestones

Milestones					
	Deliverable	**Original Targeted Completion Date**	**Revised Targeted Completion Date**	**Actual Completion Date**	**Estimated % Complete**
1	Issue RFP for Owner's Advocate Engineer			2016 Q4	100%
2	Complete Preliminary Design	2017 Q3	2018 Q2	2018 Q2	100%
3	Issue DB RFQ	2017 Q4	2018 Q2	2018 Q2	100%
4	Prequalify DB Proponents	2018 Q3	2018 Q4	2019 Q1 (no shortlist established)	100%
5	**Complete Detailed Design**	**2020 Q3**	**-**	**2020 Q3**	**100%**
6	**Award Tender**	**2021 Q1**	**-**	**2021 Q1**	**100%**
7	Complete SCADA Upgrade	2021 Q3	-		0%
8	Complete PLC Upgrading - Tache/Shoal Lake	2022 Q2	-		0%
9	Complete PLC Upgrading - McPhillips/Hurst	2023 Q2	-		0%
10	Complete PLC Upgrading - MacLean/Deacon	2024 Q2	-		0%
11	Complete Commissioning of all Project Components	2024 Q2	-		0%

Risk (Update from last report)

During this reporting period, the COVID-19 pandemic emerged as a potential risk to the project. The social distancing measures, travel restrictions, and economic conditions as a result of COVID-19 pandemic have the potential to affect the project schedule and budget.

Although the COVID-19 pandemic resulted in the design team to working remotely, the design schedule was maintained with no budget impacts.

During the tender period for the project, physical distancing and mask-use were required during facility tours. In order to relieve Contractors of some of the schedule risk (and associated costs) associated with COVID-19, Materials Management and Legal Services developed COVID-19 schedule delay clauses which were included in Tender No. 805-2019. It is assumed these provisions minimized the potential for significantly inflated bids due to the unknowns associated with COVID-19. The COVID-19 pandemic did not affect tender pricing and the award was on schedule.

The implementation phase will begin in Q1 2021. If Contractor access into City facilities is prohibited during the implementation phase, a schedule extension will be required. Travel restrictions have the potential to affect the Contractor's labour force as it is anticipated the labour force may be a combination of local and out of province labour. If the labour force is impacted, a schedule extension may be required. To date, no supply chain impacts have been identified.

To date, no financial or schedule impacts have occurred due to the COVID-19 pandemic, however this risk continues to be monitored as the situation evolves.

Table 3 – Significant Risks and Mitigation Strategies reflects the most current version of the Risk Management Register.

Table 3 – Significant Risks and Mitigations Strategies

Significant Risks and Mitigation Strategies	
Risk Statement and Explanation	**Risk Mitigation Management Plan**
New:	
COVID-19 pandemic affecting workforce, travel, supply chain, and facility access.	COVID-19 schedule delay clauses have been incorporated into the Tender. Schedule extension to be considered as requried.
Ongoing:	
Difficulties in commissioning or changeover that may affect system operation.	Project constraints were defined in the tender documents. Start upgrades at low risk stations and apply lessons learned to future station upgrades.
Constraints on implementation meant to minimize potential impacts on the water supply system mean that small changes in the schedule can cause completion date shifts of up to a year.	The project schedule will be reviewed and adjusted at key milestones including; upon receipt of Contractor's schedule and at completion of the Regional SCADA upgrade.
Mitigated:	
Tender could yield no bidders, however likelihood is low as bidders are more familiar with DBB procurement approach.	Potential bidders were notified once tender was posted.
Bid prices exceed available budget resulting in inability to award and schedule delay.	Detailed design established a Class 1 cost estimate prior to issuance of the tender. Bid received was below pre-bid estimate.
PLC components to be replaced are at the end of their intended service life and may fail prior to project completion. These components are no longer manufactured.	An inventory of spare PLC components has been obtained by the Department. As stations are upgraded, the obsolete PLC components will be retained and added to the spare parts inventory as necessary.
SCADA hardware to be replaced is at the end of its intended service life and may fail prior to project completion.	The Department has virtualized the existing SCADA servers to minimize system impacts and maintain system operation in the event of a failure prior to project completion. The purchased hardware will be re-used in the upgraded SCADA system as a test bed platform.

Financial (Update from last report)

For further information, refer to Appendix B – Financial Forecast

A total of $998,677.12 was expended during this reporting period. Expenditures included $732,589.13 on detailed design services under Contract 583-2016 and $248,574.38 for network communication upgrades to the Tache Booster Pumping Station and the Winnipeg Drinking Water Treatment Plant under Contract 922-2017. A total of $17,513.61 was also expended to purchase a replacement uninterruptable power supply for the Shoal Lake Intake Facility via a modified competition solicitation.

The 2020 Capital Budget was approved on March 20, 2020 which included a $2,690,000.00 increase to the Water SCADA Upgrade project budget and increased the total project budget to $19,115,000.00. The increase includes additional funds to account for construction innovation loss that may have been achieved through a design-build project delivery method and project scope and cost increases. The Financial Forecast included in Appendix B has been updated to reflect the project budget increase.

The Financial Forecast included in Appendix B has also been updated to reflect the awarded Contract value for Tender 805-2019, the anticipated value of the contract administration phase of Contract 583-2016, and insurance costs.

Funding (Update from last report)

There is no external funding for this report.

Table 4 – Project Funding Forecast

Funding Forecast			
Funding Source	**Adopted Budget (in millions)**	**Amended Budget (in millons)**	**Committed (in millions)**
Class of Estimate	**Class 3**	**Class 3**	
Retained Earnings	12.300	19.115	19.115
Total	**$12.300**	**$19.115**	**$19.115**

Property Acquisition (Update from last report)

N/A

Stakeholder Engagements/Communications (Update from last report)

N/A

Subsequent Events after Report Period End Date

On January 14, 2021, Tender No. 805-2019 was awarded to Manco Control Systems Inc. in the amount of $9,321,164.83, GST extra as applicable, for the implementation phase of the project. The work of Tender No. 805-2019 consists of the supply, installation, programming, testing, start-up commissioning, training, and support for a complete SCADA system replacement, and PLC system and power reliability upgrades for the City's drinking water regional distribution system. Manco Control Systems Inc.'s bid was approximately 26% lower than the pre-bid estimate of $12,617,000.00. The pre-bid estimate assumed that a general electrical contractor would lead the project and would subcontract an integrator, such as Manco Control Systems Inc., for a large portion of the work. By Manco Control Systems Inc. leading the project and conducting a large portion of the work, savings will be achieved due to elimination of the mark-up on a large portion of the work and reduction in the amount of coordination required between the contractor team. Further, as much of the work is similar across the facilities, it is anticipated that Manco Control Systems Inc. will be able to gain efficiencies throughout the project delivery. Appendix C – Key Project Events (History) has been updated to reflect the award of Tender No. 805-2019.

FINANCIAL IMPACT

Financial Impact Statement **Date:** March 26, 2021

Project Name:

Water Supervisory Control and Data Acquisition (SCADA) Upgrade,
Project ID: 2005100200,
Quarterly Project Status Report No. 17
For the Period Ended December 31, 2020

COMMENTS:

This report is submitted for information. The financial forecast can be found in Appendix B.

"Original signed by L. Szkwarek, CPA, CGA"
Lucy Szkwarek, CPA, CGA
Manager of Finance and Administration

CONSULTATION

This Report has been prepared in consultation with:

N/A

OURWINNIPEG POLICY ALIGNMENT

01-3 Prosperity Direction 1: Provide efficient and focused civic administration and governance. This report supports demonstration of accountability through service performance measurement and reporting.

03-6c of the Sustainable Water and Waste Direction Strategy: Water Distribution System Investment. This capital project supports investment in the water SCADA system.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

N/A

SUBMITTED BY

Department:	Water and Waste
Division:	Engineering Services
Prepared by:	A.M. Weiss, P. Eng., Senior Project Engineer
Date:	March 26, 2021
File No.:	W-761

Appendices

Appendix A – Key Project Facts

Appendix B – Financial Forecast

Appendix C – Key Project Events (History)

Appendix A – Key Project Facts

Project Name	Water Supervisory Control and Data Acquisition (SCADA) Upgrade
Business Owner (Department)	Water and Waste
Project ID	2005100200
Project Sponsor	Linda McCusker
Department Responsible for Project Delivery	Water and Waste
Consultant Engineer (Company Name)	Dillon Consulting Ltd.
Adopted Budget	$12,300,000
Class of Estimate (Adopted)	3 (blended Class 3 and Class 4)
Range of Estimate (Adopted)	-24% to +35% or $9,370,000 to $16,660,000
Amended Budget	$19,115,000
Class of Estimate (Amended)	3
Range of Estimate (Amended)	-20% to +30% or $15,292,000 to $24,849,500

Project Scope

The SCADA system controls and monitors the operation of the Winnipeg Drinking Water Treatment Plant and the Water Supply and Distribution System. The automated control system is comprised of specialized computer hardware and software, remote communications, instrumentation and Programmable Logic Controllers (PLCs). The Department currently has two water SCADA systems; the Regional SCADA system which is used to control and monitor processes for the Water Supply and Distribution System and the Water Treatment Plant SCADA which is used to control and monitor processes at the Winnipeg Drinking Water Treatment Plant. The SCADA system is essential for the supply, water treatment process control and distribution of drinking water.

The computer servers, workstations and software of the Regional SCADA system were last upgraded in 2006 and have reached the end of their useful life. Operating system support for this hardware ended in July 2015 and hardware age has exceeded the current industry standard for replacement, increasing risks to system reliability. To achieve system sustainability and to ensure continuous operation of the system, replacement of server and workstation hardware and installation of software with longer support lifespan, including compatibility with new hardware, is required. As part of the upgrade, the Regional SCADA will be integrated with the Water Treatment Plant SCADA as this solution was found to have an overall lower 25-year lifecycle cost than maintaining two separate SCADA systems. The Regional SCADA communication network will also be upgraded to increase bandwidth capacity.

The PLCs currently in use at the three regional pumping stations (McPhillips, MacLean and Hurst), Tache and Deacon booster pumping stations, and the Shoal Lake Intake Facility were installed in 1992 and are no longer serviced or supported by the manufacturer. Upgrading the water supply system's PLCs at this time will allow for the review of the control software to optimize the operation of the system.

A number of upgrades to address risks associated with the configuration of the pumping and ancillary equipment were identified in a Water Pumping Station Power Reliability Study. These power reliability upgrades will address shortcomings in the existing control and instrumentation design and will add redundancy to ensure greater station reliability. The Regional SCADA and PLC upgrades will be undertaken in conjunction with power reliability upgrades at the pumping stations to minimize station shut down times and potentially reduce overall project costs.

Major Capital Projects Advisory Committee Membership:

- Moira Geer (Chair), Director of Water and Waste
- Geoffrey Patton, Manager of Engineering, Water and Waste
- Cindy Fernandes, Director of Community Services
- John Kiernan, Director of Planning, Property & Development
- Danny Tooth, Acting Manager of Capital Projects, Assets and Project Management
- Lucy Szkwarek, Manager of Finance and Administration, Water and Waste

Appendix B – Financial Forecast

Appendix B - Project Water Supervisory Control and Data Acquisition (SCADA) Financial Forecast*
As at December 31, 2020

Project Component Deliverables	Budget (in 000's)			Expenditure Forecast (in 000's)							Surplus (Deficit) From Amended Budget	Variance Last Report	Change in Variance
	Adopted Budget[1]	Council Approved Change[2]	Amended Budget	Actual Costs To Dec. 31, 2020	Projected Costs 2021	2022	2023	2024	2025	Total Forecasted Costs			
Engineering, Design and Other[3]	$ 1,428	$ 2,403	$ 3,831	$ 1,930	$ 650	$ 366	$ 406	$ 287	$ 192	$ 3,831	$ -	$ -	$ -
Construction[4]	$ 8,674	$ 1,093	$ 9,767	$ 446	$ 1,758	$ 3,631	$ 2,649	$ 1,057	$ 226	$ 9,767	$ -	$ -	$ -
Land Acquisition	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Internal Financing/Overhead Costs	$ 198	$ 340	$ 538	$ 13	$ 293	$ 112	$ 81	$ 32	$ 7	$ 538	$ -	$ -	$ -
Contingency	$ 2,000	$ 2,979	$ 4,979	$ -					$ 4,979	$ 4,979	$ -	$ -	$ -
Total Project Budget	**$ 12,300**	$ 6,815	$ 19,115	$ 2,389	$ 2,701	$ 4,109	$ 3,136	$ 1,376	$ 5,404	$ 19,115	$ -		
% of Project Budget Spent (Actual Costs to Date / Adopted & Amended Budget)	19%		12%										

*Adopted and Amended budget and actual costs to date have been agreed to the City's general ledger and Monthly Capital Expenditures Report. Actual cost variance equals spending from closed budget years. See below.

[1] The distribution of costs between engineering, construction, internal financing/overhead and contingency was done by the Water and Waste Department. Budget funds and projected costs have been reallocated between project component deliverables to reflect the change in project delivery method from design-build to design-bid-build and awarded and estimated contract values.

[2] On March 20, 2019, Council adopted the 2019 Capital Budget which included a $4,125,000 increase to the Water SCADA Upgrade budget. On March 20, 2020, Council adoped the 2020 Capital Budget which included a $2,690,000 increase to the Water SCADA Upgrade budget.

[3] Engineering, Design and Other includes Professional Engineering Services (preliminary design, life cycle cost analysis, procurement services, detailed design and contract administration).

[4] Construction includes equipment and hardware, software, programming, implementation and warranty services.

Project ID	Project Year	Amended Budget	Costs to Date
2005100200	2016 - 2020	$18,712,661	$1,986,368
Total Closed Project Budget[5]		$402,339	$402,339
Total Project Budget to Date		$19,115,000	$2,388,707

[5] Does not appear in the Capital Expenditures Monthly Report as the funds have been expended and it is designated as a closed Project ID.

Appendix C – Key Project Events (History)

In 2012, SNC-Lavalin Inc. was retained by the City to provide professional consulting services for the predesign of the Programmable Logic Controller (PLC) replacement. The predesign was undertaken in conjunction with the predesign of power reliability upgrades required at the pumping stations. A final preliminary design report was issued in 2013 and recommended the complete replacement of the PLCs and that a complete rewrite of the PLC program code be undertaken. A Class 3 cost estimate was prepared for the PLC upgrades as part of the preliminary design work.

In 2014 and 2015, Dillon Consulting Ltd. performed a Regional Supervisory Control and Data Acquisition (SCADA) life cycle cost analysis. The Department currently has two water SCADA systems; the Regional SCADA system which is used to control and monitor processes for the Water Supply and Distribution System and the Water Treatment Plant SCADA which is used to control and monitor processes at the Winnipeg Drinking Water Treatment Plant. The life cycle cost analysis examined the option of upgrading the existing Regional SCADA system and the option to integrate the Regional SCADA with the Water Treatment Plant SCADA into a single SCADA system. The life cycle cost analysis found that integrating both the Water Treatment Plant SCADA and the Regional SCADA into a single system was the preferred option having the lowest life-cycle cost. A Class 4 cost estimate was prepared for the Regional SCADA upgrade as part of the life cycle cost analysis.

On April 9, 2015, the Water SCADA Upgrade project began reporting to the Standing Policy Committee on Finance under the $10 million reporting threshold for capital projects in effect at that time.

On October 28, 2015, Council approved a new reporting threshold of $20 million for capital projects. The Council approval also included provision for adjustment of the reporting threshold on an annual basis to account for construction inflation. Projects reporting to the Standing Policy Committee on Finance under the previous $10 million reporting threshold will continue to report.

In early 2016, the Department determined that design build (DB) was the preferred delivery method for the project. The DB project delivery method was selected due to shorter implementation timelines and the additional benefit of having the contractor on the design team. The project design will require significant overlap between the designer and contractor to complete the programming, shut down planning and coordination and commissioning for the project. The Department also determined that an Owner's Advocate Engineer would be required to provide additional preliminary design services, to procure the design-builder and to provide guidance to the City throughout the project.

On February 28, 2017, Dillon Consulting Ltd. was engaged under Request for Proposal (RFP) 583-2016 as an Owner's Advocate Engineer. Services to be provided under Phase I of the Contract included: preliminary design, procurement of a design-builder and associated project management services. Phase II of the Contract included contract administration, post construction services and associated project management and was to be awarded at a later date subject to the conditions of RFP 583-2016. As part of the preliminary design work under Contract 583-2016, the Owner's Advocate Engineer provided an updated Class 3 cost estimate for the project to confirm project budgets.

On May 1, 2018, Request for Qualifications (RFQ) No. 706-2017A was issued to shortlist DB Proponents. The RFQ closed on July 31, 2018 and three Proponent submissions were received. The technical and financial consensus meetings for the RFQ determined the three Proponent submissions did not meet the passing thresholds required to pre-qualify any of the Proponents to advance to the RFP process for the DB project. The Department determined that changing the project delivery method from a DB to a Design-Bid-Build (DBB) was the option with the greatest likelihood of successful procurement with the least impact on the project schedule. On February 22, 2019, the Major Capital Projects Advisory Committee concurred with the Department's recommendation to change the project delivery method from DB to DBB.

On March 20, 2019, Council adopted the 2019 Capital Budget which included a $4,125,000 increase to the Water SCADA Upgrade budget. The increase was due to project amalgamation ($1,539,000) and cost increases identified in an updated Class 3 cost estimate for the project ($2,586,000).

On March 20, 2020, Council adopted the 2020 Capital Budget which included a $2,690,000 increase to the Water SCADA Upgrade budget. The increase includes additional funds to account for construction innovation loss that may have been achieved through a design-build project delivery method and project scope and cost increases.

On January 14, 2021, Tender No. 805-2019 was awarded to Manco Control Systems Inc. for the implementation phase of the project. The work of Tender No. 805-2019 consists of the supply, installation, programming, testing, start-up commissioning, training, and support for a complete SCADA system replacement, and PLC system and power reliability upgrades for the City's drinking water regional distribution system.

The Water SCADA Upgrade adopted project roll-up includes the following Project Identifications:

Project ID	**Project Year**	**Amended Budget**
2005100200	2016 - 2017	$11,897,661
2005100200	2019	$4,125,000
2005100200	2020	$2,690,000
Total Closed Project Budget[1]		$402,339
Total Project Budget to Date		$19,115,000

[1] Does not appear in the Capital Expenditures Monthly Report as the funds have been expended and it is designated as a closed Project ID.