



Memo

To: Clay Pearson, City Manager

From: Cara Davis, Sr Project Manager –

CC: Trent Epperson, Deputy City Manager
Robert D Upton, P.E., Director of Engineering & Projects
Skipper Jones, Assistant Director of Capital Projects
John McCarter, Interim Director of Finance
Clarence Wittwer, Director of Public Works
David Van Riper, Assistant Director of Public Works

Date: January 14, 2021

Re: John Hargrove Environmental Center (JHEC) Water Reclamation Facility Expansion

14 January 2021
To: Mayor and City Council members
Update on next steps to advance needed expansion and upgrades for JHEC wastewater plant; moving along and looking to have an early works construction package. Also, received TWDB approval today of expanded \$75 million financing which is big positive.
Clay

Purpose

This memo provides information about progress on the John Hargrove Environmental Center (JHEC) Wastewater Treatment Plant Expansion project's current status and the forthcoming proposed award of a contract amendment for final design and construction phase services to Ardurra Group (Ardurra). This contract is scheduled for presentation to Council on the January 25, 2021 meeting agenda.

Current Project Status Update

In March 2019, Council awarded the design contract for the JHEC Water Reclamation Facility (JHWRF) Expansion to Ardurra Group. The scope of the proposed work included preparation of the Bid and Construction Documents for the 2 MGD expansion. The contract was scoped for a Design/Bid/Build project and included Bid Phase services up to award of a contract for construction but did not go into Construction Phase services. Construction Phase services were to be added as an amendment once design was completed and tailored to the project delivery method selected. In April 2019, based on the successful application of Construction Manager at Risk (CMAR) delivery with other facility and plant projects, the decision was made to change the delivery methodology to CMAR and in May an RFP for CMAR services for the JHEC and Barry Rose projects was published resulting in an award of a Contract for CMAR Pre-Construction Services for the JHWRF Expansion Project to PLW Waterworks (formerly Pepper Lawson) in January 2020.

In March the CMAR provided its 30% Opinion of Probable Construction Cost (OPCC) of \$64.5 million which incorporated process modifications to ensure the proposed plant expansion would leave the facility capable of future expansion without the need to schedule plant shutdowns and to allow the facility to serve as a satellite Emergency Response Staging area. The Team's

perception of these costs was that they could easily trend downward as the design matured but several additions to the scope of work (May 2, 2019 memo and resolved in the October 1, 2020) pushed the cost up and by the 60% plan cost estimate the CMAR's costs estimate had increased to \$69.7 million. Staff initiated a comprehensive review of options available to reduce the costs resulting in a very successful Value Engineering exercise that over the course of three weeks identified and quantified 16 items or systems that could be removed without impacting plant operations, saving \$5.3 million dollars. (See October 1, 2020 memo attached for full details). The use of the Value Engineering exercise demonstrates both the veracity of the CMAR process and the value of having real-time cost estimating performed alongside the design development by having the contractor on the project team guiding the constructability and cost efficiency aspects BEFORE going to the contracting market for bids.

On November 9, 2020 Staff received notification from TWDB that there would be a delay in the loan application process. Low interest rates initially offered in the TWDB 2021 funding program were over extended, forcing TWDB to re-assess applicants and their project funding requests. The latest communications from TWDB have resulted in a small increase in the interest rate from 0.29% to 0.60%. Additionally, the revised TWDB schedule to approve the City's loan application has been rescheduled from December 2020 to January 14, 2021 with closing now planned for April 2021.

At this time the plans have reached 90% completion and the CMAR is using that plan generation to begin pricing negotiations with major equipment vendors to lock-in pricing prior to traditional annual price increases. If this strategy proves successful, Staff may submit to Council an Early Work Package containing the purchase of these long lead time equipment packages totaling approximately \$16 million dollars. This could be ready as early as mid-February and, if so, would coincide well with notice of Loan Approval from TWDB.

Proposed Amendment

In order to capture the Value Engineering cost reductions identified in September's VE effort, and take advantage of TWDB's schedule delay, Staff requested that the Engineer begin plan modifications immediately to solidify these savings. As noted in the October memo, these modifications are extensive and involve modifications to the site plan, piping plans, headworks, building structures and floor plans and changes to deep foundations and removal of certain process equipment not critical to the current capacity expansion. In order to capture the full financial impact of these reductions the plans must be changed to reflect the absolute requirements of the decreased work scope making this expenditure necessary to communicate the extent of these changes and the revised intent of the design. These revisions were begun utilizing \$175,000 from the existing design contract. These funds resulted from unused line items from Lift Station modeling, unused Bid Phase Services and Reimbursables. Total cost for all plan modifications associated with the \$5.3 million in savings is estimated to be \$ 519,000 leaving a balance of \$344,000 to be incorporated into the forthcoming proposed Design Contract Amendment that will be presented at the January 25th meeting. This amendment will include modification of the existing Design/Bid/Build contract to one tailored to the greater work-load during design experienced by the Engineer in the CMAR delivery process.

In addition to these design changes to facilitate the \$5.3 million in construction savings, the scope of the proposed Amendment 2 includes the necessary Construction Phase Services tasks to complete those services associated directly with the CMAR delivery methodology, specifically: Basic Services, Construction Administration Services, Supplemental Design Services and Additional Services. The contract amendment is broken out into tasks in the proposal as follows:

BASIC SERVICES

Task 1 – Project Management and Coordination

Task 2 – Engineering Services During Construction

CONSTRUCTION ADMINISTRATION SERVICES

Task 3 – Construction Administration

SUPPLEMENTAL DESIGN SERVICES

Task 4 – Design Phase CMAR Support (plan modifications to secure construction savings)

ADDITIONAL SERVICES

Task 5 – Additional Engineering Services During Construction

Task 6 – TWDB Coordination

Task 7 – Operations and Maintenance Manual

Task 1 and Task 2

Basic Services include the Project Management and Coordination and the Engineering Services during construction that are part of the engineering required for the construction phase of the CMAR delivery process. The original design contract anticipated a design/bid/build delivery which typically reduces engineering services during construction to a minimal administrative role, with the selection change to the CMAR process makes the Engineer an integral part of the construction phase. The Engineer will be reviewing work, addressing questions and proposed changes by the CMAR, providing project oversight also update the project management plan to include the revised delivery plan and scope, meet weekly with the CMAR to coordinate project data exchanges, monthly progress meetings, site visits, submittal reviews, responding to requests for information (RFIs) and dealing with work change directives, assistance during start-up, testing and commissioning assistance, substantial and final completion inspections, record drawings, and one-year warranty support services. Task 1 and Task 2 for Project Management and Coordination and Engineering Services During Construction are proposed for a fee of \$132,000 and \$1,175,000 for a total fee of \$1,307,000 furnished as lump sum.

Task 3

Under the Construction Administration Services, a Senior Field Project Representative will act as the City's on-site Owner's Representative administering the contract for construction and providing project oversight, maintaining records of decisions and changes made, and conducting construction progress meetings. As-built documents will be reviewed and updated regularly with the CMAR, adherence to approved project baseline schedule will be monitored on an on-going basis and cost impacts (both increase and decrease) tracked with the schedule of values. The on-site representative will also coordinate the work of the CMAR with external agencies and utility companies. The Task includes provision of a Project Inspector that will provide full-time on-site

technical observation and reporting of the CMAR's activities to verify all materials, structures, equipment, and workmanship comply with the Contract and that the CMAR maintains construction practices and professional standards. The owner's representative will also be responsible for also keep the City Project Manager and Design Engineer informed of the project process, verification that the CMAR has obtained necessary permits and is maintaining any Traffic Control, public notification, and Storm Water Pollution Prevention Plans, facilities, equipment or arrangements in accordance with contract documents as well general oversight of the project site. The team will review progress pay applications with Design Engineer for approval or revision prior to submittal to the City. The team will be responsible for document control, provide technical guidance as an advocate for the City, review test reports for compliance with Contract documents and provide contract closeout and warranty services. Construction Administration Services, Task 3, will be performed per the provided fee schedule as hourly not to exceed with the level of effort totaling \$1,670,000.00.

Task 4

Supplemental Design Services work includes performing the design modifications to the plans required by the Value Engineering that will reduce construction costs by the estimated \$5.3 million dollars. The work will involve weekly CMAR Design Development Coordination Calls to discuss the project schedule, TWDB sub-contract and procurement package approvals and changes, design review clarifications and change log, the construction cost estimate updates and cost trend log. Ardurra will also conduct Construction Sequencing/Commissioning Planning Meetings with the CMAR and City staff. The engineer will provide informational support to the CMAR's development of the Guaranteed Maximum Price (GMP)/Bid phase activities to further provide clarifications and additional information to bidding sub-contractors and material vendors. The Engineer will also review proposed alternate materials and/or substitutions proposed during the bidding process and during the CMAR's final negotiations with potential subcontractors following the CMAR's receipt of the Issued for Construction documents from the Engineer. Task 4 for Supplemental Design Services are proposed for \$519,000. Amendment 1, which has already been processed, funded \$175,000 of this task leaving a balance of \$344,000 to be funded in the current proposed Amendment 2 on a lump sum basis.

Task 5, Task 6 and Task 7

The Additional Engineering Services During Construction represents additional Engineering hours to be used if the number of meetings, site visits, submittals and/or RFIs exceed those planned for in Task 2 above. Task 6 includes the additional coordination with TWDB as required to continue the Clean Water SRF funding process through loan closure. Lessons learned from the Surface Water Plant indicate that TWDB's unfamiliarity with the CMAR process has meant a great deal of time and effort on the Engineer's part to answer TWDB questions. The Engineer will address questions related to the funding of pay applications, design and minor scope or specification changes in bid packages submittal reviews as requested by TWDB. Following loan closure, the Engineer will continue to coordinate with TWDB as needed to assist the City with reimbursements and answer TWDB's questions throughout the construction phase. If required, the Engineer will facilitate a site visit by TWDB during the one-year warranty period. The Engineer will also develop an Operation and Maintenance (O&M) Manual to provide reliable access to

facility process and electrical equipment operation information such as permits, equipment/vendor O&M manuals, standard operating procedures (SOPs), and photos to incorporate into Asset Management. Task 5 - Additional Engineering Services during construction for 99,600, Task 6 - TWDB Coordination for \$96,400 and the production of the Task 7 - Operation & Maintenance Manual for \$94,900 and will be performed on an hourly not to exceed basis for a total of \$291,000.

Next Steps

Staff expects to bring this amendment to Council on the January 25th Agenda for consideration and award. The project is currently at 90% design and the CMAR is in the process of preparing the 90% Guaranteed Maximum Price (GMP). The CMAR has posted plans and specifications for plant equipment procurement anticipated as early works packages in an effort to secure pricing prior to end of year increases. Bids were received in December 2020. Based upon contracts for the large amount of equipment costs the team is evaluating the potential for an early works package for equipment procurement. If this needs to be broken out into an early work package to secure the equipment it would be anticipated to come before Council sometime in February.

TWDB has recently informed City staff that the loan application submitted for the project will go before the TWDB Board for consideration on January 14, 2021. As of the meeting this morning by the Board of Directors the loan amount of \$75,000,000 was approved (agenda attached). Loan closing is tentatively scheduled for April 1, 2021. PLW, the CMAR, will be going out for the balance of plant costs during February and March to finalize the GMP and then submit to Council in late-March/early-April. Construction is planned to start in April 2021.

Budget Information

Current budget information reflects construction cost estimate, which is the 60% estimate after the value engineering exercise was performed. As with other CMAR delivered projects, cost estimating and refinement of cost-effective design and construction methodologies are primary components for the CMAR. These figures will change as the CMAR's 90% GMP is submitted at which time the City may accept that price and issue a contract for construction.

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
W/S Revenue Bonds	2016A	752,500		752,500
W/S Revenue Bonds	2018B	2,111,526		2,111,526
W/S Revenue Bonds			34,765,000	34,765,000
Impact Fee - Cash		2,111,525		2,111,525
Impact Fee - Debt	2016A	752,500		752,500
Impact Fee - Debt			34,765,000	34,765,000
Other Funding Sources		386,949		386,949
Total Funding Sources		6,115,000	69,530,000	75,645,000
Expenditures		To Date	Future	Total
PER		462,235		462,235
Land				-

Design	3,775,000	3,612,000	7,387,000
Construction	830,987	64,066,191	64,897,178
Construction Management/Inspection			-
Construction Materials Testing		450,000	450,000
FF&E		500,000	500,000
Total Expenditures	5,068,223	68,628,191	73,696,413
Project Balance/Contingency			1,948,587

Schedule Info:

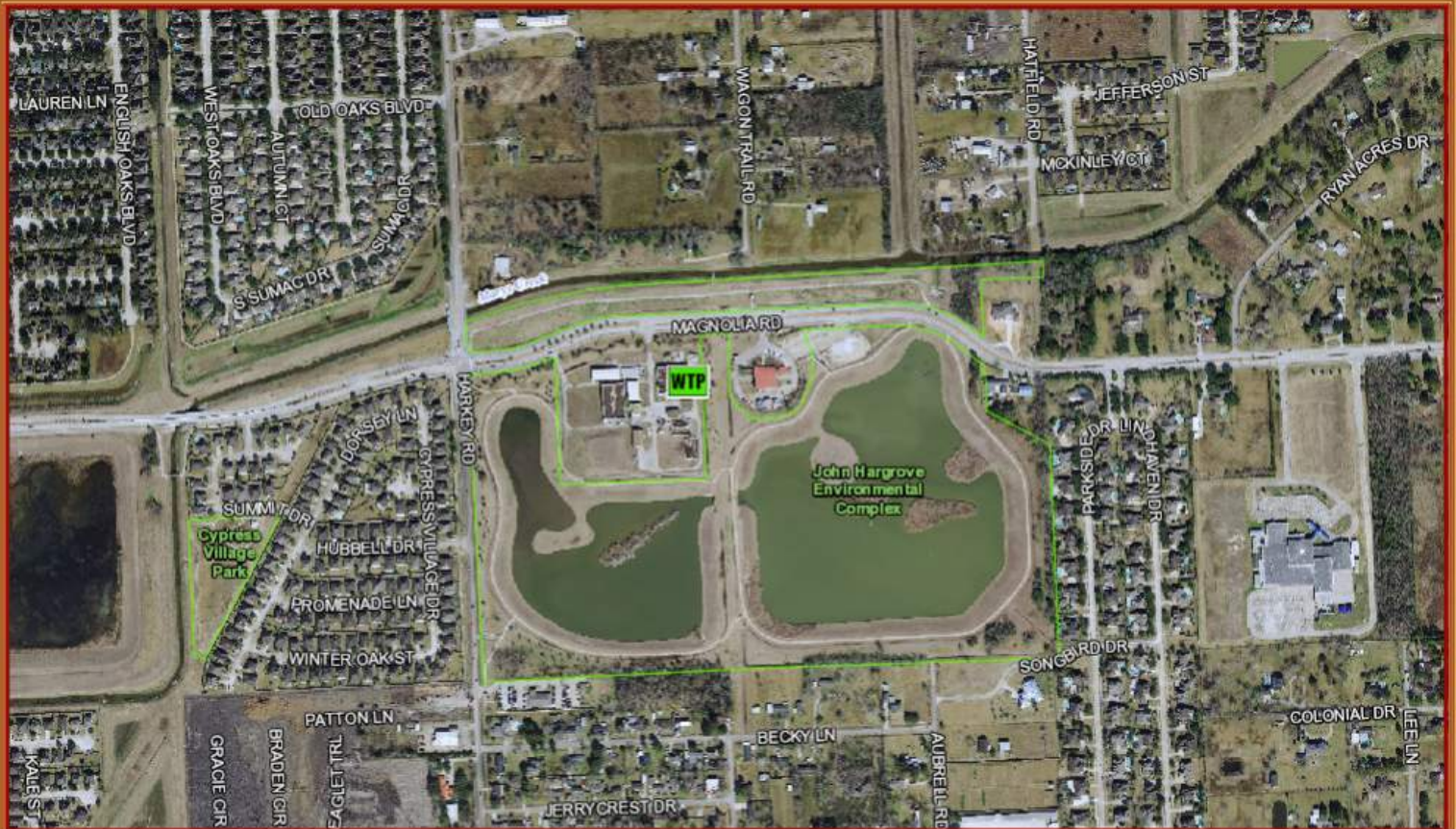
	<i>Base Line</i>	<i>Current</i>
Design Start	March-19	April-19
Bid Start	November-20	September-19
Construction Start	November-20	April-21
Proposed Construction Completion	October-23	

This project was procured through the Construction Manager at Risk (CMAR) process. The original base line schedule was projected using the design-bid-build process.

Recommendation

At the January 25, 2021 City Council meeting, Staff will recommend that Council authorize award of a contract amendment to Ardurra Group for Final Design and Construction Phase Services in the amount of \$3,612,000. Following this authorization, the remainder of the design changes due to the value engineering will commence and Construction Phase Services will begin upon the Notice to Proceed issued to the contractor.

JOHN HARGROVE WATER RECLAMATION FACILITY



Legend/Notes

WTP Wastewater Treatment Plant

1:7,715

1 inch = 640 feet



This project is for informational purposes only and may not be prepared or approved by the City of Pearland.

W.R.P. PREPARED: JANUARY 24, 2018

AGENDA
TEXAS WATER DEVELOPMENT BOARD
January 14, 2021 – 9:30 am
VIA GO TO WEBINAR
PLEASE SEE www.twdb.texas.gov
Austin, Texas

1. Approve the publication and adoption of 31 TAC Chapters 363, 371, and 375. (Kendal Kowal)
2. Briefing and discussion regarding anticipated interest rate subsidies and financing terms that would be available through the Clean and Drinking Water State Revolving Fund programs under the State Fiscal Year 2022 Intended Use Plans. (Mark Wyatt)
3. Approve by resolution a request from the City of Houston (Harris County) for \$325,000,000 in multi-year financing from the Clean Water State Revolving Fund for construction of wastewater system improvements. (Nancy Richards)
4. Approve by resolution a request from the City of Pearland (Brazoria County) for \$75,000,000 in financing from the Clean Water State Revolving Fund for planning, design, and construction of a wastewater treatment plant expansion project. (Nancy Richards)
5. The Board will receive comments from the public on any matters within the jurisdiction of the TWDB, with the exception of matters which are subject to the ex parte prohibition found in Texas Government Code Section 2001.061.
6. The Board may adjourn into Executive Session and conduct a closed meeting to consider any item on this agenda if a matter is raised that is appropriate for the Board to conduct a private consultation with its attorney on a matter in which the duty of the attorney to the governmental body under the Texas Disciplinary Rules of Professional Conduct of the State Bar of Texas clearly conflicts with Chapter 551 of the Texas Government Code. The Board may conduct a closed meeting to receive legal advice and discuss pending or contemplated litigation, settlement offers, or the appointment, employment, evaluation, reassignment, duties, discipline or dismissal of specific Board employees, including the Executive Administrator and General Counsel, as permitted by Sections 551.071 and 551.074, the Texas Open Meetings Act, codified as Chapter 551 of the Texas Government Code. The Board may also meet in open meeting to take action on legal or personnel matters considered in the closed meeting as required by Section 551.102 of the Open Meetings Act, Chapter 551 of the Government Code. The Board may conduct a closed meeting to consider and discuss financial matters related to the investment or potential investment of the Board's funds, as permitted by Section 6.0601(a) of the Texas Water Code. The Board may also meet in open meeting to take action on a financial matter discussed in the closed meeting as required by Section 6.0601(b) of the Texas Water Code.

The next currently scheduled meeting of the Texas Water Development Board will be January 19, 2021. Other meetings may be scheduled and will be posted in compliance with the Texas Open Meetings Act.

Persons with disabilities who plan to attend this meeting and who may need auxiliary aids or services such as interpreters for persons who are deaf or hearing impaired, readers, large print or Braille, are requested to contact Merry Klonower at (512) 463-8165 two (2) work days prior to the meeting so that appropriate arrangements can be made.

NOTICE: ENTRY TO THIS MEETING WITH A HANDGUN IS FORBIDDEN

This meeting is a public meeting under Chapter 551 of the Texas Government Code. Pursuant to Section 30.06, Penal Code (trespass by license holder with a concealed handgun), a person licensed under Subchapter H, Chapter 411, Government Code (handgun licensing law) may not enter this property with a concealed handgun. Pursuant to Section 30.07, Penal Code (trespass by license holder with an openly carried handgun), a person licensed under Subchapter H, Chapter 411, Government Code (handgun licensing law) may not enter this property with a handgun that is carried openly. For purposes of this notice, "property" means the room or rooms where the open meeting of the Texas Water Development Board is held.

Direct links to this information can be found on our website at www.twdb.texas.gov

To view/listen to the Board Meeting on Thursday, January 14, 2021, please use:
<https://attendee.gotowebinar.com/register/4955774195711771916>

If you are a visitor for this meeting and wish to address the Board, please fill out the **online registration form** <http://www.twdb.texas.gov/board/visitor.asp> and send it to Cheryl.arredondo@twdb.texas.gov *no later than 8:00 a.m. on January 14, 2021.*



Memo

To: Clay Pearson, City Manager

From: Cara Davis, Sr Project Manager –

CC: Trent Epperson, Assistant City Manager
Robert D Upton, P.E., Director of Engineering & Projects
Skipper Jones, Assistant Director of Capital Projects
John McCarter, Interim Director of Finance
Clarence Wittwer, Director of Public Works
David Van Riper, Assistant Director of Public Works

Date: October 1, 2020

Re: John Hargrove Environmental Center (JHEC) Wastewater Treatment Plant Expansion – **TWDB Funding Application**

1 October 2020
To: Mayor and City Council members
Much background, but basically, a revision to the TWDB loan amount is needed to cover the project cost potential, secure incredibly low long-term interest rates through TWDB. The actual borrowed amount can be adjusted down to what's needed. Clay

Purpose

This memo provides information about progress on the John Hargrove Environmental Center (JHEC) Wastewater Treatment Plant Expansion project and the proposed request to **revise Resolution 2020-28 previously approved January 27, 2020 increasing the authorized loan amount from \$64 million to \$75 million for the Texas Water Development Board (TWDB) funding application for the project.**

Background

The JHEC Water Reclamation Facility (JHWRF) currently has a current capacity of 4 million gallons per day (MGD). Ardurra Group provided the engineering services for a Preliminary Engineering Report (PER) submitted in January 2017, assessing development/population driven capacity requirements for the plant and originally recommending a capacity expansion of 5 MGD to meet ultimate building out requirements assuming annexation of areas south of existing city limits located in the ETJ.

A Project Information Form (PIF) was submitted to Texas Water Development Board (TWDB) in March 2017 requesting \$75 million based on the PER cost estimate, for the proposed 5 MGD expansion, that identified probable construction costs and a total project cost, including design, construction, testing and construction management. When annexations laws were changed later in 2017 a Technical Memorandum amending the original findings of the PER was submitted in September 2018 recommending a 2 MGD expansion for a total of 6 MGD plant capacity. The PIF document and its cost estimates were based on original capacity requirements developed in the Preliminary Engineering Report for a 5 MGD expansion. The reduced recommendation contained in the September 2018 PER Amendments reduced the anticipated construction cost of the project to \$56.4 and with final design, construction, testing and construction management the total project

cost was estimated to be \$64 million. At that time Staff requested Council authorize an application for TWDB Clean Water State Revolving Funds, in January 2020, of \$64 million (total project cost).

The project included planning and design for the expansion of the Sequential Batch Reactors (SBR) treatment basins adding two new basins, significant rehabilitation and modifications to both influent lift stations, modifications to the multiple sub-systems including the headworks structure and screens, adding a grit removal system, tertiary treatment and adding a second channel of UV filters to allow future expansion, if required, to be done without plant shutdown.

As final design began, the site was also identified for storage of Emergency Operations equipment, such as rescue vehicles and generators, and to house a limited number of emergency operations personnel for staging, briefings and deploying during such events. The Operations building was scheduled to be expanded in the initial project due to the lack of separation of clean space for office and record storage as well as food preparation and consumption. This expansion offered the opportunity to provide dual use space.

- Emergency vehicle and generator storage was added to the site plan
- Operations building was expanded to be capable of performing as a Staff shelter, staging and briefing center for EOC operations.

Additionally, Staff sought to ensure the plant expansion would leave the facility capable for future expansion, estimated at an additional 2MGD due to growth within the existing City limits projected out after 10 years, without the need to schedule plant shutdowns, a situation that greatly increases the construction costs due to risks assumed by the contractor. Several process modifications were added to the original scope to cover this contingency, including:

- Replacement of Ultra Violet disinfection equipment to replace end of life system
- Upgrades were added to the tertiary treatment equipment (Aqua Aerobics fabric filters)
- Headworks size was increased to prevent modifications in any future expansion
- Replacement of pipe headers at Influent Lift Stations, added gates
- Added Odor Control at the influent lift station
- Modified the design of the planned splitter box (replacing with yard piping)
- Added Sludge Transfer Station to provide operational flexibility
- Added Pre-Rotation Pump in Influent Lift Station-1
- Include SCADA under CMAR project

In March 2020, the CMAR provided its 30% Opinion of Probable Construction Cost (OPCC) incorporating the above additions beyond what had been included in the original PER and the amending Technical Memorandum estimate from the Engineer. The revised construction estimate came in at \$64.5 million. Early indications were that this cost could go down as the design evolved and matured.

In April, with the results of the sewer basin model and new operational concerns, new additions were made to the scope. These additions included:

- Pre-Rotation pump equipment was added to Influent Lift Station 2 to ensure uptake of solids to reduce contracted solids removal costs and prevent cavitation of the pumps

- Fine screen channels were added to the Headworks to provide future process flexibility
- Control Building/Lab rehab and expansion was added to meet ADA compliance
- Increase width of fire lane from 20' to 24' to meet Fire Department access requirements
- SCADA Allowance increased from \$300k to \$600k to ensure adequate budgeting
- Non-Potable Water System Yard Pipe system was expanded to capture sufficient water for process use

In July, at the 60% Design Review meeting, the CMAR presented updated cost estimates reflecting the full scope as modified by the above additions. The 60% OPCC was estimated to be \$69,744,336.

Upon the receipt of the 60% OPPC, Staff determined that a major value engineering (VE) exercise was necessary to verify the need and value of these additions to the design and to attempt to get the project back into the original budget range. Multiple items were identified for reduction, removal or alteration that would reduce costs. Over the course of three weeks a very successful series of VE meetings were conducted with the CMAR removing, reducing or altering system components, including:

- SBR Foundations - Vibratory Piles in Lieu of Auger Cast Pile Design, geotechnical agreed
- Sludge Building Structural - First floor will be precast concrete with CMU block infill. Second floor will be pre-engineered metal building (PEMB) (insulated metal panels) with partial walls (open to atmosphere)
- Reduce Demo of existing Surge Basin Slab to holes - vs - full slab removal
- Sludge Building polymer Mono Rail Hoist removal;
- Open Canopy structure for Vehicle & Equipment Storage Area (Delete)
- Pre-Cast Lone-Star Building or E-Building, Electrical BB-1
- A Risk Reduction change was made at the corner of the Electrical and Blower Building No. 2 Electrical Room Modifications to omit the need for a deep excavation at that location
- Operations Building changed to pre-engineered metal structure retaining EOC space
- Reduce Site Paving and Existing Demo (less Paving)
- Bid Packages Strategy & Early Works Packages
- Eliminate channels at Headworks for future fine screens
- Add Splitter box to reduce 24" screened Raw Sewage Pipe
- Eliminate one Belt Filter Press (not conveyor)
- Use HDPE for Raw Sewage & Screened Raw Sewage Pipe instead of Ductile Iron Pipe
- Remove Odor Control – Due to the location of the site and lack of residential or commercial development in close proximity, this component could be removed without issue. New technology to include mixers in the lift station will minimize solids and assist with odors.
- Remove Pump Pit at Aerated Sludge Holding Tanks Nos. 1 and 2

The review exercise for the VE items produced an estimated savings of \$(5,322,681). However, there are related design costs to make the revisions to existing designs in the amount of \$367,100 and equipment allowances estimated at \$108,424, which provides a net savings of \$(4,847,158). Although not final at this point, the revised estimate is now trending at \$64,897,178.

Costs already encumbered on the project that are slated for reimbursement with loan funds include the design contract for Ardurra, \$3,775,000 and the CMAR contract for PLW, \$828,960. Estimated costs for construction, construction management/inspection, and construction materials testing are \$64,897,178, \$3,612,000 and \$450,000 respectively. **The total estimated project costs currently stand at \$73,563,138.** For that reason, Staff are requesting that Council revise the authorized TWDB loan request amount from \$64 million to \$75 million to cover all anticipated costs as currently estimated including design, construction, testing and construction management. The requested loan amount can be decreased if market conditions reduce costs but, it cannot be increased without a new loan application.

Current Status

The TWDB loan application is in place but the amount must be adjusted before the end of October in order to be scheduled for the November TWDB Board meeting where it will be considered. The CMAR’s GMP, based on 90% plans and specifications is due in late February 2021. The CMAR is planning to begin his bidding process leading to the creation of his GMP in November. The schedule for loan closing is set for February. The total loan funding request can be adjusted down at any time before loan closing, based on more accurate pricing after the GMP is received and accepted. **The current approved FY21 CIP budget has been revised to account for all current costs anticipated for construction and the current wastewater rates account for this cost.** Increasing the authorized loan amount to \$75 million will allow the City to benefit from the historically low interest rates versus supplementing with higher interest rate revenue bonds.

The loan application is for Clean Water State Revolving Fund Non-Equivalency funds that are currently trending at 1.3 basis points below market rates given City of Pearland’s AA rating. Current interest rates indicate that the loan would be funded with an interest rate in the area of 0.29%. Rates are locked in 45 days prior to loan closing. The loan requirements include a 1.75% loan origination fee, the adoption of Water Conservation and Drought Contingency Plans (which are already in place), the preparation of an Environmental Assessment (completed with the Expansion design), and construction requirements such as Davis-Bacon wage rates, and compliance with the EPA’s American Iron and Steel provisions that are not required for the City’s normal bond funding.

Budget Information

Current budget information reflects early construction costs estimated during the CMAR process. This estimate was developed during the 30% design phase and contains a significant contingency to cover unknowns. As with other CMAR led projects cost estimating and refinement of cost-effective design and construction methodologies are primary scope components for the CMAR. These figures will change as the project progresses and ultimately produces the CMAR’s GMP at which time the City may accept that price and issue a contract for construction.

Funding Sources	Series	To Date	Future	Total Budget
General Revenue - Cash				-
W/S Revenue Bonds	2016A	752,500		752,500

W/S Revenue Bonds	2018B	2,111,526		2,111,526
W/S Revenue Bonds			34,765,000	34,765,000
Impact Fee – Cash		2,111,525		2,111,525
Impact Fee – Debt	2016A	752,500		752,500
Impact Fee – Debt			34,765,000	34,765,000
Other Funding Sources		386,949		386,949
Total Funding Sources		6,115,000	69,530,000	75,645,000

Expenditures	To Date	Future	Total
PER	475,000		475,000
Land			-
Design	3,775,000	710,000	4,485,000
Construction	828,960	64,897,178	65,726,138
Construction Management/Inspection		3,612,000	3,612,000
Construction Materials Testing		450,000	450,000
FF&E		500,000	500,000
Total Expenditures	5,078,960	70,169,178	75,248,138

Project Balance/Contingency	396,862
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Schedule Info:

	Base Line	Current
Design Start	March-19	April-19
Bid Start	November-20	September-19
Construction Start	November-20	April-21
Proposed Construction Completion	October-23	

This project was procured through the Construction Manager at Risk (CMAR) process. The original base line schedule was projected using the design-bid-build process.

Recommendation

At the October 12, 2020 City Council meeting, Staff will recommend that Council authorize a revision to the previous resolution to authorize the submittal of an application for TWDB funding in the amount of \$75 million. Following this authorization, the application will be updated and forwarded immediately to TWDB to be included in the November Board agenda for approval. Council will have an additional opportunity to approve the final loan application and amount when the loan is scheduled for closing in early 2021.

JOHN HARGROVE WATER RECLAMATION FACILITY



Legend/Notes

WTP Wastewater Treatment Plant

1:7,715

1 inch = 640 feet



This product is for informational purposes only and may not be prepared to the same standards as a final engineering drawing. It is not intended for construction purposes.

DATE PREPARED: JANUARY 24, 2018