AGENDA ITEM MEMO

BOARD MEETING DATE: July 7, 2021

TO: Board Members

THROUGH: Jeff Walker, Executive Administrator
Ashley Harden, General Counsel
Jessica Pena, Deputy Executive Administrator

FROM: T. Clay Schultz, Ph.D., Director, Regional Water Project Development
Annette Mass, Assistant General Counsel
Nancy Richards, Manager, Regional Water Project Development

SUBJECT: Amendment to the San Jacinto River Authority project scope

ACTION REQUESTED
Amend by resolution the previously adopted Texas Water Development Board (TWDB) Resolution No. 17-058, to modify the San Jacinto River Authority’s (Authority) Clean Water State Revolving Fund project scope.

BACKGROUND
On July 6, 2017, the TWDB, through Resolution No. 17-058 (Attachment 2), approved $49,000,000 in financing from the Clean Water State Revolving Fund (CWSRF) for the Authority. The financial assistance included design and construction of wastewater improvements for the rehabilitation of approximately two miles of a gravity sewer interceptor line ranging in diameter from 42 to 72-inches utilizing trenchless construction methods and work at the Wastewater Treatment Facility No. 1 (WWTF No. 1). The Authority closed on $42,895,000 in November 2017.

To date, the Authority has completed the rehabilitation of the Bear Branch Gravity Main project and dewatering improvements at WWTF No. 1. The Authority was in the process of designing replacement aeration basins at the plant when the member districts of The Woodlands Division approved the Authority to move forward with a long-term consolidation study to evaluate community needs, desired level of service, and potential for efficiency improvements within the system. The Woodlands Wastewater Consolidation Study will determine if consolidating one or more of the WWTFs into one larger co-located facility is a better path forward for the community. The study will be conducted in phases

Our Mission
Leading the state’s efforts in ensuring a secure water future for Texas and its citizens

Board Members
Brooke T. Paup, Chairwoman | Kathleen Jackson, Board Member
Jeff Walker, Executive Administrator
based on the member districts’ preferences, with two phases likely. Phase I will likely take one year to complete and is estimated to cost $2,000,000. Phase 2 costs will be determined at a later time.

In addition to the study, the Authority would also like to add the design, construction and construction related services of the Southshore Sewer Renewal to its project scope. This project will rehabilitate several trunk lines that have been shown to be highly deteriorated during a recent closed-circuit television inspection. The estimated costs for this project are approximately $9,000,000. To date, there is approximately $24 million remaining in the project budget.

**KEY ISSUES**
The Authority’s original commitment included only design and construction phases. The Authority has requested, via a letter dated April 27, 2021 (Attachment 3), the addition of the planning phase to its scope with the Woodlands Wastewater Consolidation Study and the Southshore Renewal project. These additions will allow the Authority to continue its original effort to address aging infrastructure in the Woodlands system.

**RECOMMENDATION**
The Executive Administrator recommends that TWDB Resolution No. 17-058 be amended to add the planning phase and additional construction projects for the Woodlands Division. The request does not change the total amount of funding already committed to the Authority and will provide greater flexibility with the available financing for the Authority’s project needs.

Attachment(s):
1. Proposed TWDB Resolution (21- )
2. TWDB Resolution (17-058)
3. Authority’s request to amend project scope
A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD
AMENDING TWDB RESOLUTION NO. 17-058
TO EXPAND THE SCOPE OF THE PROJECT FOR THE REMAINING FINANCIAL ASSISTANCE
OF THE
$43,910,000 SAN JACINTO RIVER AUTHORITY SPECIAL PROJECT REVENUE BONDS
(WOODLANDS WATER SUPPLY SYSTEM AND WASTE DISPOSAL SYSTEM REPAIR AND
REHABILITATION PROJECTS),
SERIES 2017

WHEREAS, at its July 6, 2017, meeting, the Texas Water Development Board
(TWDB), by TWDB Resolution No. 17-058, made a commitment to provide financial
assistance to the San Jacinto River Authority (Authority) for the purpose of financing
improvements to the Authority’s wastewater system in the amount of $43,910,000.

WHEREAS, the Authority closed on $42,895,000 through the TWDB’s purchase of
$42,895,000 San Jacinto River Authority Special Project Revenue Bonds (Woodlands
Water Supply System and Waste Disposal System Repair and Rehabilitation Projects),
Series 2017, from the Clean Water State Revolving Fund program, all as is more
specifically set forth in the TWDB’s Resolution and accompanying documentation, to
which documents express reference is made; and

WHEREAS, by letter dated April 27, 2021, the Authority has requested that the
TWDB amend the previous resolution, TWDB Resolution No. 17-058, to expand the scope
of Project No. 73764 to include a sanitary sewer rehabilitation project in the Woodlands
and a planning project for the Woodlands;

WHEREAS, the original project for which financial assistance was provided has
been completed and $23,791,395 remains unused;

WHEREAS, the additional project elements as proposed by the Authority are
eligible projects within the Clean Water State Revolving Fund program; and

WHEREAS, the TWDB hereby finds that the amendment(s) to the term of this loan
is reasonable and that the request is in the public interest and will serve a public purpose;
and

WHEREAS, in accordance with the Texas Water Code, the TWDB has carefully
considered all matters required by law;

NOW, THEREFORE, based on these considerations and findings, the TWDB resolves
as follows:

1. The commitment of the TWDB to provide financial assistance for the construction of
certain wastewater system improvements is amended to include additional sanitary
sewer rehabilitation and a study; and

Attachment 1
2. that all other terms and conditions of TWDB Resolution No. 17-058 shall remain in full force and effect

APPROVED and ordered of record this the 7th day of July, 2021.

TEXAS WATER DEVELOPMENT BOARD

___________________________
Brooke T. Paup, Chairwoman

DATE SIGNED:_______________

ATTEST:

___________________________
Jeff Walker
Executive Administrator
A RESOLUTION OF THE TEXAS WATER DEVELOPMENT BOARD
APPROVING AN APPLICATION FOR FINANCIAL ASSISTANCE IN THE AMOUNT OF $43,910,000 TO
THE SAN JACINTO RIVER AUTHORITY
FROM THE CLEAN WATER STATE REVOLVING FUND
THROUGH THE PROPOSED PURCHASE OF
$43,000,000 SAN JACINTO RIVER AUTHORITY SPECIAL PROJECT REVENUE BONDS
(WOODLANDS WATER SUPPLY SYSTEM AND WASTE DISPOSAL SYSTEM REPAIR AND
REHABILITATION PROJECTS),
PROPOSED SERIES 2017

(17-058)

WHEREAS, the San Jacinto River Authority (Authority) has filed an application for financial
assistance in the amount of $43,000,000 from the Clean Water State Revolving Fund (CWSRF) to
finance the design and construction of certain wastewater system improvements identified as
Project No. 73764; and

WHEREAS, the Authority seeks financial assistance from the Texas Water Development
Board (TWDB) through the TWDB's proposed purchase of $43,000,000 San Jacinto River
Authority Special Project Revenue Bonds (Woodlands Water Supply System and Waste Disposal
System Repair and Rehabilitation Projects), Proposed Series 2017 (together with all authorizing
documents, "Obligations"), all as is more specifically set forth in the application and in
recommendations of the TWDB's staff; and

WHEREAS, the Authority has offered a pledge of net system revenue as sufficient security
for the repayment of the Obligations; and

WHEREAS, the commitment is approved for funding under the TWDB's pre-design funding
option, and initial and future releases of funds are subject to 31 TAC § 375.14; and

WHEREAS, the TWDB hereby finds:

1. that the revenue and/or taxes pledged by the Authority will be sufficient to meet all the
   Obligations assumed by the Authority, in accordance with Texas Water Code § 15.607;

2. that the application and assistance applied for meet the requirements of the Federal Water
   Pollution Control Act, 33 U.S.C. §§ 1251 et seq., as well as state law, in accordance with
   Texas Water Code § 15.607;

3. that the Authority has adopted and implemented a water conservation program for the
   more efficient use of water that will meet reasonably anticipated local needs and
   conditions and that incorporates practices, techniques or technology prescribed by the
   Texas Water Code and TWDB's rules; and
4. that the Authority has considered cost-effective, innovative, and nonconventional methods of treatment, in accordance with Texas Water Code § 15.007.

NOW THEREFORE, based on these findings, the TWDB resolves as follows:

A commitment is made by the TWDB to the San Jacinto River Authority for financial assistance in the amount of $43,000,000 from the Clean Water State Revolving Fund through the TWDB’s proposed purchase of $43,000,000 San Jacinto River Authority Special Project Revenue Bonds (Woodlands Water Supply System and Waste Disposal System Repair and Rehabilitation Projects), Proposed Series 2017. This commitment will expire on July 31, 2018.

Such commitment is conditioned as follows:

Standard Conditions

1. this commitment is contingent on a future sale of bonds by the TWDB or on the availability of funds on hand;

2. this commitment is contingent upon the issuance of a written approving opinion of the Attorney General of the State of Texas stating that all of the requirements of the laws under which said Obligations were issued have been complied with; that said Obligations were issued in conformity with the Constitution and laws of the State of Texas; and that said Obligations are valid and binding obligations of the Authority;

3. this commitment is contingent upon the Authority’s compliance with all applicable requirements contained in 31 TAC Chapter 375;

4. the Obligations must provide that the Obligations can be called for early redemption only in inverse order of maturity, and on any date beginning on or after the first interest payment date which is 10 years from the dated date of the Obligations, at a redemption price of par, together with accrued interest to the date fixed for redemption;

5. the Authority, or an obligated person for whom financial or operating data is presented to the TWDB in the application for financial assistance either individually or in combination with other issuers of the Authority’s Obligations or obligated persons, will, at a minimum, regardless of the amount of the Obligations, covenant to comply with requirements for continuing disclosure on an ongoing basis substantially in the manner required by Securities and Exchange Commission (SEC) in 17 CFR § 240.15c2-12 (Rule 15c2-12) and determined as if the TWDB were a Participating Underwriter within the meaning of such rule, such continuing disclosure undertaking being for the benefit of the TWDB and the beneficial owners of the Authority’s Obligations, if the TWDB sells or otherwise transfers such Obligations, and the beneficial owners of the TWDB’s bonds if the Authority is an obligated person with respect to such bonds under SEC Rule 15c2-12;
6. the Obligations must contain a provision requiring the Authority to levy a tax and/or maintain and collect sufficient rates and charges to produce system revenues in an amount necessary to meet the debt service requirements of all outstanding obligations and to maintain the funds established and required by the Obligations;

7. the Obligations must include a provision requiring the Authority to use any loan proceeds from the Obligations that are determined to be remaining unused funds, which are those funds unspent after the original approved project is completed, for enhancements to the original project that are explicitly approved by the Executive Administrator or if no enhancements are authorized by the Executive Administrator, requiring the Authority to submit a final accounting and disposition of any unused funds;

8. the Obligations must include a provision requiring the Authority to use any loan proceeds from the Obligations that are determined to be surplus funds remaining after completion of the project and completion of a final accounting for the following purposes as approved by the Executive Administrator: (1) to redeem, in inverse annual order, the Obligations owned by the TWDB; (2) deposit into the Interest and Sinking Fund or other debt service account for the payment of interest or principal on the Obligations owned by the TWDB; or (3) deposit into a reserve fund;

9. the Obligations must contain a provision that the TWDB may exercise all remedies available to it in law or equity, and any provision of the Obligations that restricts or limits the TWDB's full exercise of these remedies shall be of no force and effect;

10. loan proceeds are public funds and, as such, the Obligations must include a provision requiring that these proceeds shall be held at a designated state depository institution or other properly chartered and authorized institution in accordance with the Public Funds Investment Act, Government Code, Chapter 2256, and the Public Funds Collateral Act, Government Code, Chapter 2257;

11. loan proceeds shall not be used by the Authority when sampling, testing, removing or disposing of contaminated soils and/or media at the project site. The Obligations shall include an environmental indemnification provision wherein the Authority agrees to indemnify, hold harmless and protect the TWDB from any and all claims, causes of action or damages to the person or property of third parties arising from the sampling, analysis, transport, storage, treatment and disposition of any contaminated sewage sludge, contaminated sediments and/or contaminated media that may be generated by the Authority, its contractors, consultants, agents, officials and employees as a result of activities relating to the project to the extent permitted by law;

12. prior to closing, the Authority shall submit documentation evidencing the adoption and implementation of sufficient system rates and charges or, if applicable, the levy of an interest and sinking tax rate sufficient for the repayment of all system debt service requirements;
13. prior to closing, and if not previously provided with the application, the Authority shall submit executed contracts for engineering, and, if applicable, financial advisor and bond counsel contracts, for the project that are satisfactory to the Executive Administrator. Fees to be reimbursed under the contracts must be reasonable in relation to the services performed, reflected in the contract, and acceptable to the Executive Administrator;

14. prior to closing, when any portion of the financial assistance is to be held in escrow or in trust, the Authority shall execute an escrow or trust agreement, approved as to form and substance by the Executive Administrator, and shall submit that executed agreement to the TWDB;

15. the Executive Administrator may require that the Authority execute a separate financing agreement in form and substance acceptable to the Executive Administrator;

Conditions Related To Tax-Exempt Status

16. the Authority's bond counsel must prepare a written opinion that states that the interest on the Obligations is excludable from gross income or is exempt from federal income taxation. Bond counsel may rely on covenants and representations of the Authority when rendering this opinion;

17. the Authority's bond counsel opinion must also state that the Obligations are not "private activity bonds." Bond counsel may rely on covenants and representations of the Authority when rendering this opinion;

18. the Obligations must include a provision prohibiting the Authority from using the proceeds of this loan in a manner that would cause the Obligations to become "private activity bonds" within the meaning of § 141 of the Internal Revenue Code of 1986, as amended (Code) and the Treasury Regulations promulgated thereunder (Regulations);

19. the Obligations must provide that no portion of the proceeds of the loan will be used, directly or indirectly, in a manner that would cause the Obligations to be "arbitrage bonds" within the meaning of § 148(a) of the Code and Regulations, including to acquire or to replace funds which were used, directly or indirectly, to acquire Nonpurpose Investments (as defined in the Code and Regulations) which produce a yield materially higher than the yield on the TWDB's bonds that are issued to provide financing for the loan (Source Series Bonds), other than Nonpurpose Investments acquired with:

a. proceeds of the TWDB's Source Series Bonds invested for a reasonable temporary period of up to three (3) years after the issue date of the Source Series Bonds until such proceeds are needed for the facilities to be financed;

b. amounts invested in a bona fide debt service fund, within the meaning of § 1.148-1(b) of the Regulations; and
c. amounts deposited in any reasonably required reserve or replacement fund to the extent such amounts do not exceed the least of maximum annual debt service on the Obligations, 125% of average annual debt service on the Obligations, or 10 percent of the stated principal amount (or, in the case of a discount, the issue price) of the Obligations;

20. the Obligations must include a provision requiring the Authority take all necessary steps to comply with the requirement that certain amounts earned on the investment of gross proceeds of the Obligations be rebated to the federal government in order to satisfy the requirements of § 148 of the Code. The Obligations must provide that the Authority will:

a. account for all Gross Proceeds, as defined in the Code and Regulations, (including all receipts, expenditures and investments thereof) on its books of account separately and apart from all other funds (and receipts, expenditures and investments thereof) and retain all records of such accounting for at least six years after the final Computation Date. The Authority may, however, to the extent permitted by law, commingle Gross Proceeds of its loan with other money of the Authority, provided that the Authority separately accounts for each receipt and expenditure of such Gross Proceeds and the obligations acquired therewith;

b. calculate the Rebate Amount, as defined in the Code and Regulations, with respect to its loan, not less frequently than each Computation Date, in accordance with rules set forth in § 148(f) of the Code, § 1.148-3 of the Regulations, and the rulings thereunder. The Authority shall maintain a copy of such calculations for at least six years after the final Computation Date;

c. as additional consideration for the making of the loan, and in order to induce the making of the loan by measures designed to ensure the excludability of the interest on the TWDB's Source Series Bonds from the gross income of the owners thereof for federal income tax purposes, pay to the United States the amount described in paragraph (b) above within 30 days after each Computation Date;

d. exercise reasonable diligence to assure that no errors are made in the calculations required by paragraph (b) and, if such error is made, to discover and promptly to correct such error within a reasonable amount of time thereafter, including payment to the United States of any interest and any penalty required by the Regulations;

21. the Obligations must include a provision prohibiting the Authority from taking any action that would cause the interest on the Obligations to be includable in gross income for federal income tax purposes;

22. the Obligations must provide that the Authority will not cause or permit the Obligations to be treated as "federally guaranteed" obligations within the meaning of § 149(b) of the Code;
23. the transcript must include a No Arbitrage Certificate or similar Federal Tax Certificate setting forth the Authority's reasonable expectations regarding the use, expenditure and investment of the proceeds of the Obligations;

24. the transcript must include evidence that the information reporting requirements of § 149(e) of the Code will be satisfied. This requirement may be satisfied by filing an IRS Form 8038 with the Internal Revenue Service. In addition, the applicable completed IRS Form 8038 or other evidence that the information reporting requirements of § 149(e) have been satisfied must be provided to the Executive Administrator within fourteen (14) days of closing. The Executive Administrator may withhold the release of funds for failure to comply;

25. the Obligations must provide that neither the Authority nor a related party thereto will acquire any of the TWDB's Source Series Bonds in an amount related to the amount of the Obligations to be acquired from the Authority by the TWDB;

State Revolving Fund Conditions

26. the Authority shall submit outlay reports with sufficient documentation on costs on a quarterly or monthly basis in accordance with TWDB outlay report guidelines;

27. the Obligations must include a provision stating that all laborers and mechanics employed by contractors and subcontractors for projects shall be paid wages at rates not less than those prevailing on projects of a similar character in the locality in accordance with the Davis-Bacon Act, and the U.S. Department of Labor’s implementing regulations. The Authority, all contractors, and all sub-contractors shall ensure that all project contracts mandate compliance with Davis-Bacon. All contracts and subcontracts for the construction of the project carried out in whole or in part with financial assistance made available as provided herein shall insert in full in any contract in excess of $2,000 the contracts clauses as provided by the TWDB;

28. the Obligations must include a provision stating that the Authority shall provide the TWDB with all information required to be reported in accordance with the Federal Funding Accountability and Transparency Act of 2006, Pub. L. 109-282, as amended by Pub. L. 110-252. The Authority shall obtain a Data Universal Numbering System (DUNS) Number and shall register with System for Award Management (SAM), and maintain current registration at all times during which the Obligations are outstanding;

29. the Obligations shall provide that all loan proceeds will be timely and expeditiously used, as required by 40 CFR § 35.3135(d), and also shall provide that the Authority will adhere to the approved project schedule;

30. the Obligations must contain a covenant that the Authority will abide by all applicable construction contract requirements related to the use of iron and steel products produced in the United States, as required by 31 TAC § 375.3, 33 U.S.C. § 1388, and related State Revolving Fund Policy Guidelines;
31. the Obligations must contain language detailing compliance with the requirements set forth in 33 U.S.C. § 1382 et seq. related to maintaining project accounts containing financial assistance for planning, design, acquisition, or construction, as applicable, in accordance with generally accepted accounting principles (GAAP). These standards and principles also apply to the reporting of underlying infrastructure assets;

32. the Authority shall submit, prior to the release of funds, a schedule of the useful life of the project components prepared by an engineer as well as a certification by the applicant that the average weighted maturity of the obligations purchased by the TWDB does not exceed 120% of the average projected useful life of the project, as determined by the schedule;

Clean Water State Revolving Fund Conditions

33. prior to or at closing, the Authority shall pay a 1.85% origination fee to the TWDB calculated pursuant to 31 TAC Chapter 375;

34. at the TWDB’s option, the TWDB may fund the financial assistance under this Resolution with either available cash-on-hand or from bond proceeds. If the financial assistance is funded with available cash-on-hand, the TWDB reserves the right to change the designated source of funds to bond proceeds issued for the purpose of reimbursing funds used to provide the financial assistance approved in this Resolution;

35. prior to release of funds for professional consultants including, but not limited to, the engineer, financial advisor, and bond counsel, as appropriate, the Authority must provide documentation that it has met all applicable state procurement requirements as well as all federal procurement requirements under the Disadvantaged Business Enterprises program;

36. prior to release of funds for professional services related to architecture or engineering, including but not limited to contracts for program management, construction management, feasibility studies, preliminary engineering, design, engineering, surveying, mapping, or other architectural and engineering services as defined in 40 U.S.C. § 1102(2)(A)(C), the Authority must provide documentation that it has met all applicable federal procurement requirements as more specifically set forth in 40 U.S.C. § 1101 et seq. and 33 U.S.C. § 1382(b)(14).

Pledge Conditions For The Loan

37. the Obligations must require the accumulation of a reserve fund of no less than average annual debt service requirements, to be accumulated in equal monthly installments over the initial sixty (60) months following the issuance of the Obligations;

38. if the Authority has existing revenue obligations with the same pledge of security as the proposed Obligations that will remain outstanding after any loan(s) made by the TWDB pursuant to this commitment, the lien or liens securing the Obligations issued to the TWDB
shall be at least on a parity with lien or liens securing such outstanding obligations;

39. the Obligations must contain a provision providing that additional revenue obligations may only be incurred if net system revenues are at least 1.25 times the average annual debt service requirements after giving effect to the additional obligations when net revenues are a) determined from the last completed fiscal year or a 12 consecutive calendar month period ending not more than ninety (90) days preceding the adoption of the additional obligations as certified by a certified public accountant; or b) the Authority certifies that the Authority is expected to continue to meet or exceed the net system revenue test with a minimum coverage of 1.25 times the average annual debt service requirement. An authorized representative of the Authority must provide the calculations, identifying reasonable assumptions, in a manner and format that is acceptable to the Executive Administrator.

APPROVED and ordered of record this 6th day of July, 2017.

TEXAS WATER DEVELOPMENT BOARD

Bech K. Bruun, Chairman

DATE SIGNED: 7-6-17

ATTEST:

Jeff Walker
Executive Administrator
April 27, 2021

Ms. Nancy Richards  
Team Manager, East Texas Region (Planning Groups H/I)  
Texas Water Development Board  
Water Supply and Infrastructure – Regional Water Planning and Development  
1700 N. Congress Avenue, 5th Floor  
Austin, TX  78711-3231

Re: Program Change Request  
TWDB CWSRF Project No. 73764

Dear Ms. Richards:

The San Jacinto River Authority (SJRA) respectfully requests a program change for the remaining funds within the active CWSRF Project No. 73764 (the Project) to add two additional projects. The Projects are, 1) the Southshore Sewer Renewal, a sanitary sewer rehabilitation project with final design, construction and construction related services, and 2) the Woodlands Wastewater System Consolidation Study (Phases 1 and 2), a planning project for a specific need in The Woodlands.

**Background**

SJRA serves as the wholesale provider of water and wastewater services in The Woodlands community for the 11 Municipal Utility Districts (MUDs) that are located within the Montgomery portion of The Woodlands, TX. The Woodlands wastewater system is separated into three regions, each with their own wastewater treatment facility (WWTF) and dedicated collection system that was planned and constructed in phases between 25 and 45 years ago.

When TWDB originally approved the Project in 2017, SJRA requested the funds to address existing aging infrastructure within The Woodlands community that has deteriorated and is approaching the end of its useful life. Several different design and construction projects were identified within the Project documents to improve the wastewater system for a total of $42,895,000. SJRA still desires to utilize the Project funds for the original needs identified in the Project document, but wishes to include the two projects mentioned above.
Southshore Sewer Renewal

Much of the wastewater collection system serving The Woodlands community has been in service for nearly 40 years, with the oldest pipe segments constructed in the 1970s. A sanitary sewer evaluation conducted in 2019-2020 evaluated all wholesale sanitary sewer lines and manholes in the collection system, and included a condition assessment of a majority of the lines using closed-circuit television (CCTV) inspection. The CCTV inspection revealed that several trunk lines and associated manholes showed significant deterioration, resulting in a high likelihood of failure due to their condition; the trunk lines also have a high consequence of failure due to their criticality and location within established residential neighborhoods and a golf course and crossing under a major roadway. As a result, these trunk lines were identified as prime candidates for rehabilitation, and preliminary design of the Southshore Sewer Renewal is currently underway.

It is envisioned that the pipeline rehabilitation in the Southshore Sewer Renewal will utilize trenchless technology via cured-in-place pipe (CIPP) or similar method, much like the Rehabilitation of Bear Branch Gravity Main currently under construction and funded within the Project. Since trenchless technology would be utilized, environmental impacts are minimized. Spot repairs to replace pipe segments would also be required if the pipe cannot be rehabilitated using trenchless methods. The methods of rehabilitation to be used, as well as the need for spot repairs/replacement of specific pipe segments, are being determined during preliminary design and will be detailed in a Preliminary Engineering Report prior to the start of final design.

The consultant currently performing preliminary design was procured in accordance with TWDB requirements under the Project, and it is SJRA’s intent to utilize this consultant for the final design phase as well. The contracting for final design would require two to three months for scoping and contract negotiations; approval by TWDB and SJRA’s Board; and the issuance of a Notice to Proceed (NTP) to the consultant. Following the NTP, design would require approximately 9-12 months to complete; design is estimated to be completed in mid-2022, with construction from late-2022 to late-2024. For design of the Southshore Sewer Renewal, SJRA anticipates the total cost of the final design effort up to $750,000. The construction is estimated to be $6,000,000 to $8,000,000.

The Woodlands Wastewater System Consolidation Study

SJRA has completed past planning studies in conjunction with the Woodlands MUDs to determine how to address the aging infrastructure in The Woodlands and has a prioritized asset management plan that is the basis for SJRA’s 10-year project plan. Each year, SJRA evaluates asset condition and re-prioritizes the 10-year project plan based upon best available information including the recently completed Sanitary Sewer Transmission Assessment and Rehabilitation (SSTAR)
program. The 2020 SSTAR program included extensive flow monitoring, modeling, and condition assessments to ultimately update the roadmap for the aging wholesale wastewater collection infrastructure in The Woodlands.

The Woodlands MUDs are interested in evaluating the long-term community needs, desired level of service, and the potential for efficiency improvements within the system. As such, The Woodlands MUDs desire to conduct a study to determine if consolidating one or more of the WWTFs into a larger co-located facility is a better path forward for the community. On April 14, 2021, The Woodlands MUDs Board of Trustees approved SJRA to receive, evaluate and score Statements of Qualifications for the consolidation concept. Upon completion and review of the feasibility study (Phase 1), The Woodlands MUDs may elect to enter into a master planning effort (Phase 2) for the consolidation study.

On behalf of The Woodlands MUDs, SJRA is requesting that TWDB consider amending the current program to allow for the Woodlands Wastewater System Consolidation Study as part of the Project. This scope of the feasibility study (Phase 1) will be refined, but in concept it would include:

- Development of Future Flow Projections
  - The Woodlands is predominantly developed with a few remaining undeveloped parcels. In 2017, SJRA worked with each MUD Board to complete the Sixth and Final Accounting that allocated current "build out" system capacity to each of the MUDs.
  - For this Feasibility Study, the selected Firm will build upon the projected development from the Sixth and Final Accounting, incorporate additional known development requests into the existing wastewater system model and establish baseline future flow projections through the planning time period. The selected Firm will incorporate this information into the existing InfoWorks ICM wastewater collection system model that was last updated and calibrated in 2019 during our Sanitary Sewer Transmission Assessment and Renewal (SSTAR) Program.
  - SJRA and the selected Firm will determine the appropriate planning time period to be utilized for the feasibility study. It is not anticipated that the selected Firm will need to develop future population projections, future development trends, or predictions on water conservation or inflow/infiltration trends for this Feasibility Study.
• Existing System Assessment
  
  o SJRA has numerous existing sources of information that will be provided to the selected Firm, including WWTF flow data; operation and maintenance costs; record drawings; GIS information; land ownership records; wastewater collection system model; 10-year project plan; our asset management plan (AMP) with relevant information on likelihood of failure, consequence of failure, business risk exposure, and replacement costs for the majority of assets; and other relevant reports and studies. The selected Firm will be expected to review the available background information and utilize it in the assessment of the existing system.
  
  o Our existing AMP contains detailed information on the condition and prioritization of aging infrastructure within the collection system; however, there has been limited third-party review of the existing WWTFs. The selected Firm will review SJRA’s existing AMP and provide high level condition assessments on the WWTF infrastructure to develop useful lifespans for SJRA’s wastewater treatment facilities. Assessment efforts will include items such as phasing/timeline for facility rehabilitation/replacement and estimated costs for replacement.
  
  o The selected firm will then utilize the pre-existing information coupled with the condition assessment for the existing WWTFs to develop the existing system’s anticipated capital expenditures (CapEx) and operations/maintenance expenditures (OpEx) over the planning time period.

• Wastewater Treatment Alternatives – The selected firm will coordinate with SJRA to develop multiple alternatives for consolidation of SJRA’s WWTFs to be evaluated further in the Feasibility Study. Alternatives may include:
  
  o Renew/Rebuild three (3) Woodlands (Montgomery County) WWTFs at their existing locations
  
  o Single regional Woodlands WWTF at the current location of WWTF No. 2 (Montgomery County)
  
  o Addition of new WWTF at the location of MUD No. 387 WWTF (Harris County) to treat WWTF No. 1 flows
  
  o Single regional Woodlands (Montgomery County) WWTF at a new location
Collection System Alternatives

- The selected Firm will coordinate with SJRA to evaluate multiple alternatives for conveying flows to the various WWTF options shown above.
- The selected Firm will develop projected CapEx and OpEx for each alternative over the planning time period. The selected Firm will work with SJRA to utilize the existing rate model to estimate rate impacts from the various collection system alternatives.

This study will be conducted in phases, based upon The Woodlands MUDs’ preferences. The contracting would require three to four months for procurement of a consultant in accordance with TWDB requirements; scoping and contract negotiations; approval by TWDB, The Woodlands MUDs, and SJRA’s Board; and the NTP to the consultant. Following the NTP, Phase 1 of the study would most likely require approximately one year to complete. If The Woodlands MUDs elect to continue into subsequent phases of the study, Phase 2 may take an additional one to two years to complete. The Phase 1 effort is estimated to cost up to $2,000,000, depending upon the final scope of work approved by The Woodlands MUDs. The cost for Phase 2 is yet to be determined.

Summary

SJRA is requesting that TWDB consider including the Southshore Sewer Renewal as part of the Project. The preliminary design phase is currently underway, and although preliminary design is not being funded by TWDB funds, it is being performed in accordance with TWDB requirements of the Project. SJRA is currently requesting funds to complete only the final design phase. Following completion of final design and bidding phases of the project, SJRA would request funds for the construction phase. Therefore, SJRA is requesting that TWDB consider approving final design, construction and construction-related services for up to $9,000,000 as part of the Project.

SJRA is requesting the Woodlands Wastewater System Consolidation Study also be included in the Project. It is our understanding this would require TWDB approval of the study itself, and also require amendment to the original TWDB resolution authorizing the Project. Therefore, SJRA is requesting that TWDB consider approving Phase 1 for up to $2,000,000 as part of the Project. Pending the results of Phase 1 of the consolidation study, SJRA may request funding of Phase 2 for the master planning effort.

The attached budget analysis shows that with the additional requested projects and related funds, total anticipated expenditures for TWDB Project No. 73764 remain within the total approved budget of $42,895,000.00.
We appreciate your consideration of this request and any guidance you may have to obtain approval for the projects described herein to improve the aging infrastructure of The Woodlands community. Should you have any specific questions on the project elements or require additional information, please contact Greg Lushbaugh, P.E. from our engineering team at (936) 588-3111 or by email at g lushbaugh@sjra.net.

Sincerely,

[Signature]

Jack A. Houston
General Manager
San Jacinto River Authority

Attachment

Cc: Chris Meeks, SJRA
    Ed Shackelford, SJRA
    Amber Batson, SJRA
    Greg Lushbaugh, SJRA
<table>
<thead>
<tr>
<th>SJRA Project</th>
<th>Type of Work</th>
<th>Contractor/Consultant</th>
<th>SJRA Contract Number</th>
<th>(A)* Current Contract Amounts</th>
<th>(B) Requested Amounts in this Request</th>
<th>(C) - (A) + (B) Contract + Requested to-Date</th>
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<tr>
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<td>Design, Procurement, Construction Phase Services</td>
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<td>WWTF No. 1 Replacement of Aeration Basin Nos. 1 and 2</td>
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* Current contract amounts include approved and pending change orders.
** Due to the pending Woodlands Wastewater Consolidation study, bidding and construction of the WWTF No. 1 Replacement of Aeration Basin Nos. 1 and 2 project is on hold; pending the results of the study, the project may be cancelled.