CERTIFICATION AND FINANCING PROPOSAL

REFINANCING OF EXISTING DEBT FOR AGUA SPECIAL UTILITY DISTRICT IN TEXAS

UNDER THE NADB COVID-19 RECOVERY PROGRAM

Submitted: October 22, 2020

BOARD APPROVAL TIMELINE

REFINANCING OF EXISTING DEBT FOR AGUA SPECIAL UTILITY DISTRICT IN TEXAS

UNDER THE NADB COVID-19 RECOVERY PROGRAM

Milestones	Date
Public comment period begins (30 days)	10/Sep/20
Public comment period ends	10/Oct/20
Board submittal for initial review	22/Oct/20
Initial Board review ends (21 days)	12/Nov/20
Initial NADB response period (10 days)	22/Nov/20
Additional Board review (14 days)	06/Dec/20
Additional NADB response period (7 days)	13/Dec/20
Board voting deadline (14 days)	27/Dec/20

This project proposal is being submitted as part of the materials for the November 12th Board meeting, and the Board will have the option to vote on it at that time.

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EXECUTIVE SUMMARY

REFINANCING OF EXISTING DEBT FOR AGUA SPECIAL UTILITY DISTRICT IN TEXAS

UNDER THE NADB COVID-19 RECOVERY PROGRAM

Project: The project consists of refinancing existing debt of the water utility, Agua Special Utility District (Agua SUD or the "Utility"), which serves communities in Hidalgo and Starr Counties in Texas (the "Project"). The refinancing will be implemented under the NADB COVID-19 Recovery Program.[1]

Project Objective: The purpose of the Project is to refinance US$13.0 million in existing debt for Agua SUD in order to reduce debt service requirements and thus increase available cash flows for the maintenance and operation of existing infrastructure, lessen the need to raise rates and allow the Utility to continue providing water and wastewater services for the benefit of its customers.

Expected Outcomes: The estimated outcomes resulting from the refinance of US$13.0 million in existing debt for Agua SUD are:

i) Annual savings of roughly US$140,000 during the first 13 years, representing 24.3% of system repair and replacement expenses and 9.0% of the cost of water production and treatment in 2019.

ii) debt service savings with a net present value of US$2.07 million over the full 30-year tenor.

iii) Improved liquidity to facilitate the ongoing provision of critical water and wastewater services.

iv) Reduced likelihood of possible rate increases for water and wastewater services.

Population to Benefit: Approximately 29,658 residents in the area served by Agua SUD.[2]

Project Sponsor: Agua SUD.

[1] During its virtual meeting in May 2020, the NADB Board of Directors approved the program, which is intended to support border communities experiencing the economic, health and social impacts of the COVID-19 pandemic, while at the same time promoting continued environmental improvement in the U.S.-Mexico border region. NADB refinancing supports private and public entities, including municipalities and utilities, by improving their liquidity position and helping them continue to provide public services for the benefit of the people in the border region.
[2] Source: U.S. Census Bureau, 2019.

Borrower: Agua SUD.

Project Cost: US$ 13.0 million.

NADB Loan: US$ 13.0 million, through the COVID-19 Recovery Program.

Uses and Sources of Funds:
(US$ million)

Uses	Amount	%
Refinancing of existing debt	$ 13.0	100.0
TOTAL	**$** 13.0	**100.0**
Sources	**Amount**	**%**
NADB Loan	$ 13.0	100.0
TOTAL	**$** 13.0	**100.0**

Interest Rate: A fixed market-rate in U.S. dollars.

Repayment Period: Up to three hundred sixty (360) months.

Repayment Source: An irrevocable first lien on and pledge of net revenue deriving from the system. The bonds will be issued as additional senior lien parity obligations, on a par with the outstanding senior lien parity obligations of the Utility.

Interest Payments: Semiannually.

Principal Payments: Annually.

Debt Service Coverage Ratio (DSCR): The Borrower shall maintain a minimum DSCR of 1.25x the average annual debt service requirement.

CERTIFICATION AND FINANCING PROPOSAL

REFINANCING OF EXISTING DEBT FOR AGUA SPECIAL UTILITY DISTRICT IN TEXAS

UNDER THE NADB COVID-19 RECOVERY PROGRAM

1. PROJECT OBJECTIVE AND EXPECTED OUTCOMES

The project consists of refinancing US$13.0 million in existing debt for the water utility, Agua Special Utility District (Agua SUD or the "Utility"), which serves communities in Hidalgo and Starr Counties in Texas (the "Project"). The refinancing will be implemented under the NADB COVID-19 Recovery Program (ProRec).[3] The purpose of the Project is to reduce debt service requirements and thus increase available cash flows for the operation and maintenance of existing infrastructure, as well as lessen the possible need to raise rates and help the Utility to continue providing critical water and wastewater services for the benefit of its customers. The refinancing is expected to generate annual savings of roughly US$140,000 during the first 13 years—which represents 24.3% of system repair and replacement expenses and 9% of the Utility's cost of water production and treatment in 2019—with cumulative savings totaling US$2.7 million over the 30-year tenor of the loan.

2. ELIGIBILITY

2.1. Project Type

The Project complies with the requirements of the COVID-19 Recovery Program, as the sponsor is a public entity whose mandate is aligned with the NADB mission, given that the Utility provide water and wastewater services to border residents.

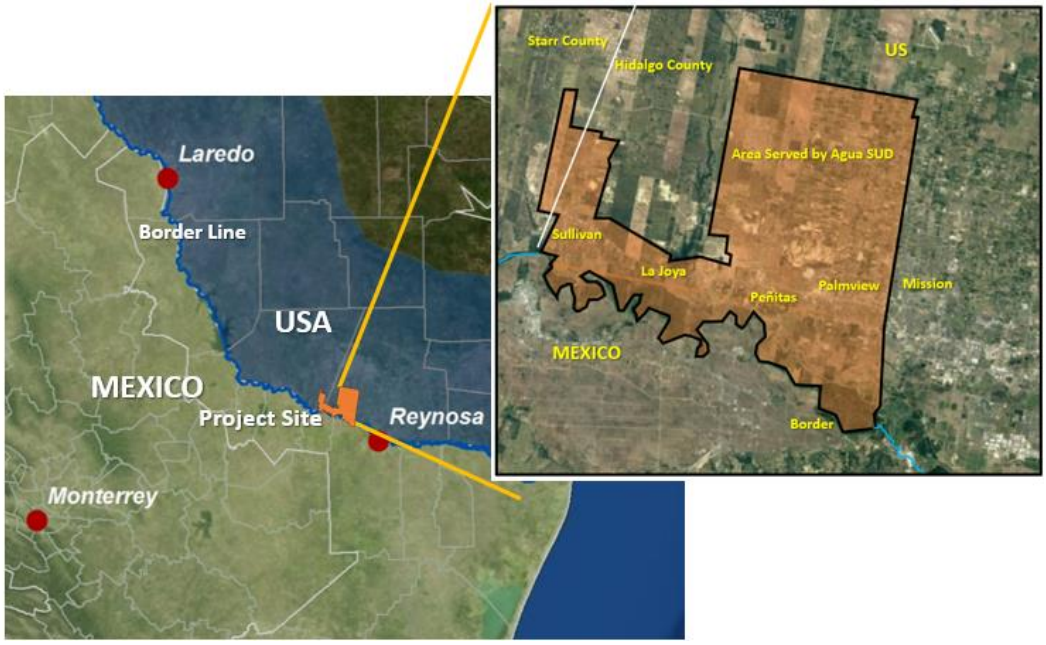
2.2. Project Location

Agua SUD serves the southwestern region of Hidalgo County and a small suburban area of Sullivan City in the southeastern corner of Starr County, adjacent to the U.S.-Mexico border. Its

[3] During its virtual meeting in May 2020, the NADB Board of Directors approved the program, which is intended to support border communities experiencing the economic, health and social impacts of the COVID-19 pandemic, while at the same time promoting continued environmental improvement in the U.S.-Mexico border region. NADB refinancing supports private and public entities, including municipalities and utilities, by improving their liquidity position and helping them continue to provide public services for the benefit of the people in the border region.

headquarters are located in the city of Palmview in Hidalgo County. The geographical coordinates of the Utility offices are approximately 26°15'08.71"N and 98°23'42.75"W. Figure 1 shows the location of the area served by the Utility.

Figure 1
AREA SERVED BY AGUA SUD



2.3. Project Sponsor and Legal Authority

The public-sector Project sponsor is the Agua SUD, which provides drinking water and wastewater collection and treatment services to its customers in Hidalgo and Starr Counties. In June 2005, the La Joya Water Supply Corporation became Agua SUD through the enactment of the Texas Special District Local Laws Code. Agua SUD has legal authority through Certificates of Convenience and Necessity (CCN) Nos. 10559 and 20785 issued by Public Utilities Commission of the State of Texas, to develop, operate and maintain water and wastewater infrastructure within Hidalgo County and Starr County.[4] Approximately 95% of the Agua SUD service area is within Hidalgo County, and the remaining 5% corresponds to a small suburban area outside Sullivan City that extends into Starr County.

[4] Source: Texas Commission on Environmental Quality (TCEQ), https://www.tceq.texas.gov/assets/public/comm_exec/agendas/comm/backup/Agendas/2012/1-11-2012/2011-1135-UCR.pdf. A Certificate of Convenience and Necessity (CCN) gives the holder the exclusive right to provide retail water and/or sewer service to a specific geographic area. The CCN obligates the utility to provide continuous and adequate service to every customer who requests service in that area.

3. CERTIFICATION CRITERIA

3.1. Technical Criteria

3.1.1. General Community Profile

The population in the area served by Agua Sud was estimated at 29,658 in 2019, which represents 0.1% of the state population.[5] Agua SUD mainly serves rural and economically-distressed communities that have an average poverty rate of 39.9% in 2019, which is considerably higher than the 14.9% poverty level estimated for the state of Texas. The median household income (MHI) in 2019 was estimated at US$33,032, which is considerably less than the US$59,570 estimated for the state.

Table 1
GENERAL DEMOGRAPHIC DATA FOR THE AREA SERVED BY AGUA SUD [a)]

Location	Population (2019 Estimates)	Median Household Income (USD)	Persons in poverty, (Percent)	Total Housing Units
Palmview	5,774	$ 35,921	27.9 %	2,058
Palmview South	5,575	37,609	32.3	2,247
Peñitas	4,716	43,438	21.4	1,444
Sullivan	4,170	27,917	31.6	1,449
La Joya	4,293	28,414	41.6	1,337
Citrus	2,321	20,532	72.5	747
Abram-Perezville [c)]	2,067	28,750	30.3	561
Havana (2010) [b)]	407	21,397	63.5	118
Los Ebanos (2010) [b)]	335	10,545	38.3	121
Totals	**29,658**			**10,082**
Averages		**$ 33,032**	**39.9**	

a) Source: U.S. Census Bureau (https://www.census.gov/programs-surveys/popest.html?intcmp=serp).
b) Source: City-data (http://www.city-data.com/).
c) Source: Texas State Library (https://www.tsl.texas.gov/ref/abouttx/popcity12010.html).

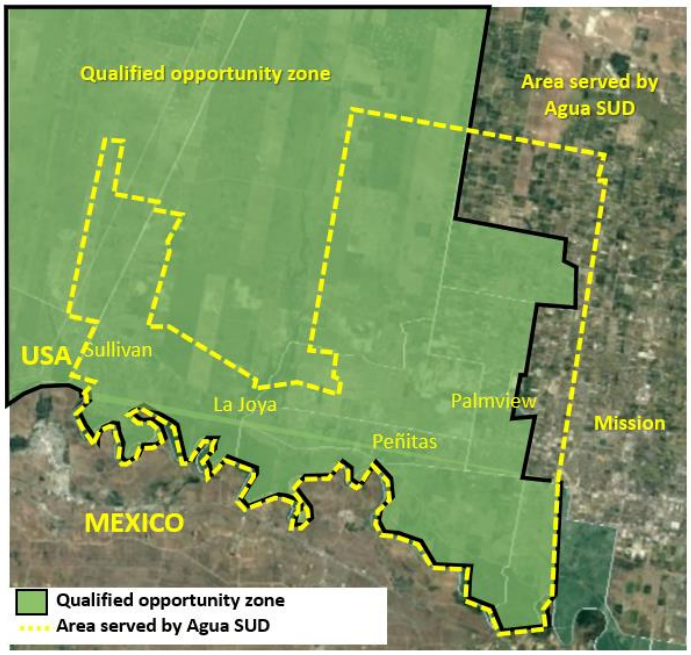
Due to its precarious economic situation, areas of Starr and Hidalgo Counties have been designated by the U.S. Federal Government as a Qualified Opportunity Zone (QOZ). The QOZ Program was created through the Tax Cuts & Jobs Act of 2017 and is a federal initiative administered by the U.S. Department of Treasury. The program is designed to spur economic development and job creation in distressed communities throughout the United States. It offers incentives, in the form of capital gains tax abatement, for those who invest eligible capital into QOZ assets even if they do not live, work or have an existing business in the QOZ.

On March 22, 2018, Governor Greg Abbott submitted the state's QOZ designations to the U.S. Treasury Department to encourage long-term investment in eligible Texas communities. A multi-step process was used to identify eligible areas in Texas, in particular need due to chronic

[5] The population was calculated using U.S. census data for the largest localities within the service area.

unemployment, low population density and significant economic disruptors, such as natural disasters. Figure 2 shows the QOZ in the area served by Agua SUD.

Figure 2
QUALIFIED OPPORTUNITY ZONE IN AREA SERVED BY AGUA SUD



The infrastructure and public services of Agua SUD are described in the following table.

Table 2
BASIC INFRASTRUCTURE AND PUBLIC SERVICES PROVIDED OF AGUA SUD [a)]

Water			
Coverage:	99%		
Water supply source: [b)]	Rio Grande River; La Joya Lake; 492 Reservoir; and Abram Reservoir.		
Number of hookups:	15,968		
Wastewater Collection			
Coverage:	9%		
Number of connections:	1,482		
Wastewater Treatment [c)]			
Coverage:	100%		
Treatment facilities:	**Plant**	**Type**	**Capacity**
	Sullivan City	Activated sludge	1.4 mgd

a) Source: AGUA SUD Comprehensive Annual Financial Report, December 31, 2019.
b) Source: Agua SUD Annual Drinking Water Quality Report, 2019.(
c) Source: Agua SUD web page, https://www.aguasud.org/sullivan-city-sewer-project.

Agua SUD is currently implementing infrastructure improvement projects in its drinking water and wastewater systems within its service area, which will expand and improve services for area residents. On May 30, 2020, Agua SUD received a US$6.0-million grant through the NADB Border Environment Infrastructure Fund (BEIF), which will help provide first-time access to wastewater collection and treatment services for nearly 1,850 households in the city of Palmview, Texas, and decommission the same number of on-site septic tanks and cesspools. This BEIF-funded project is currently under construction and is expected to be completed in July 2021. As a result of this project, wastewater collection coverage will increase from 9% to 21% in the Agua SUD service area. The Utility has entered an interlocal agreement with the City of Mission to purchase 2.5 million gallons a day of capacity to treat the new wastewater flows collected in Palmview. [6]

Current COVID 19 Situation

Nationwide in the U.S.

Since the outbreak in March 2020, the virus has been spreading exponentially to all nations and all U.S. states. According to the U.S. Center for Disease Control and Prevention (CDC) as of October 19, 2020, the United States had reported 8,143,113 COVID-19 infections with a total death toll of 218,072. The state of Texas with 840,237 total infections and 17,013 deaths for the same period, has the 2nd highest number of cases in the country—just after California. [7]

To assist in the recovery from the COVID-19 pandemic, the U.S. Government has responded in several ways. In March 2020, the Coronavirus Aid, Relief and Economic Security (CARES) Act was passed by Congress, providing an economic relief package exceeding US$2 trillion. This law included the US$150-billion Coronavirus Relief Fund to provide aid for state, local and tribal governments. It also is providing direct relief to American households, which as of June 2020, totaled US$267 billion. Moreover, the U.S. Small Business Administration has assigned US$376 billion in relief for American workers and small business. Likewise, the Federal Reserve established a US$500-billion Municipal Liquidity Facility to help state and local governments better manage cash flow constraints in order to continue to serve households and businesses in their communities.

The White House has issued 13 executive orders to address the COVID-19 pandemic on a variety topic, including allocation of medical resources; extending deadlines for certain payments; and supporting the economic recovery. The Executive Branch has also implemented various programs within its agencies and departments to tackle the pandemic. In particular, EPA has undertaken efforts to preserve the health and safety of the public, including: (i) issuing guidance on emerging viral pathogens for antimicrobial pesticides; (ii) establishing the Temporary COVID-19 Enforcement Policy; (iii) providing information on water and wastewater; (iv) identifying and providing personal protective equipment; and (v) establishing indoor air quality protection measures.

[6] The Mission wastewater treatment plant is not operated by Agua SUD and has the capacity to treat 9.0 mgd and currently receives an average flow of 6.2 mgd. (https://missiontexas.us/city-departments/public-works/wastewater-treatment/).
[7] Source: USAFacts, https://usafacts.org/visualizations/coronavirus-covid-19-spread-map/.

Water Utilities in the U.S.

The American Water Works Association (AWWA) estimates a US$13.9 billion or 16.9% annual loss in the U.S. water utility sector due to the COVID-19 crisis. This negative impact is derived from water utilities suspending service shut-off for non-payment, an anticipated increase in delinquencies as a result of high unemployment rates, reductions in non-residential water demand and associated revenue offset by an increase in residential consumption and lower customer growth.[8]

Because of the foregoing financial impacts, AWWA anticipates that water utilities across the U.S. may delay and/or reduce annual capital investments by as much as US$5 billion to help manage cash flows during the crisis. This reduction in capital expenditures would result in the loss of 75,000 to 90,000 private-sector jobs nationwide.

The pandemic has also reduced the availability of critical supplies for system operation, such as chemicals for water treatment, fuel for water pumps and spare parts. With the decline in income, water utilities are also struggling to cover labor costs and provide adequate personal protective equipment (PPE) for their staff. In some cases, they may also be increasing costs as they expand water services in vulnerable communities by providing access at additional water points, tanker services and other enhanced delivery mechanisms.

Finally, deferring critical capital investments in order to cover daily operating expenses and continue to provide these essential services during this crisis is affecting system operation and maintenance, in areas such as system expansion to unserved areas, rehabilitation of obsolete and deteriorated infrastructure, and upgrades to improve services and efficiency.[9]

Hidalgo County

On March 13, 2020, the Governor of Texas declared a state of disaster for all counties in Texas in response to the COVID-19 pandemic. On August 5, 2020, Hidalgo County Judge Richard F. Cortez issued County Order 20-012 in response to the COVID-19 Public Health Emergency, which instructs all Hidalgo inhabitants to shelter at home; to leave their residences only to perform essential activities for their health and safety; to wear a face cover over their nose and mouth inside any building and when in an outdoor public space; and to limit the size of gatherings. It also instructs restaurants to limit their services to curbside, drive-thru and take out.[10]

As of October 19, 2020, Hidalgo County has reported 34,343 COVID-19 infections, about 3.9% of county's population, with a total death toll of 1,899 individuals (5.53% fatality index). These figures are higher than the national percentages of 2.5% and 2.68%, respectively.[11] At the end of 2019, the unemployment rate in the county was approximately 7.0%. Following the COVID-19 outbreak, unemployment increased sharply to 18.1% in April 2020; however, recent estimates

[8]Source: AWWA, *The Financial Impact of the COVID-19 Crisis on U.S. Drinking Water Utilities*. April 2020 (https://www.awwa.org/Portals/0/AWWA/Communications/AWWA-AMWA-COVID-Report_2020-04.pdf).
[9] Source: Ibid.
[10] Source: Hidalgo County coronavirus updates, https://www.hidalgocounty.us/ImageRepository/Document?documentId=40109.
[11] Source: Hidalgo County coronavirus updates, https://www.hidalgocounty.us/2630/Coronavirus-Updates.

suggest that the unemployment rate dropped to 12.8% as of June 2020.[12] Unemployment continues well above recent historical levels.

Agua SUD

While the full impact of the pandemic on the Utility cannot be quantified at this time, the ongoing crisis is having an adverse effect on its operations and financial condition. Some of these impacts are described below:

- Higher than usual costs related to the health and safety of its employees, including testing employees for COVID-19 and the purchase of protective gear, such as masks, gloves, and disinfectants on a routine basis.
- In July 2020, approximately 22% of the Utility 's employees were in quarantine due to the pandemic, with no reduction in the payroll expense.
- Postponed its Board of Directors May 2020 elections, joining other cities throughout the Rio Grande Valley that chose to delay their elections until November 2020 in an effort to mitigate the spread of COVID-19.
- Waived the 5% surcharge for making payments with a credit card, to comply with Hidalgo County Order 20-011related to the COVID-19 Public Health Emergency.

One of the cost-saving measures proposed by the Utility's Board is to reduce its debt service obligations by refinancing its existing debt. Those savings, along with support from the federal Coronavirus Aid, Relief and Economic Security (CARES) Act and the BEIF grant to complete construction of the current wastewater system expansion project, will help mitigate potential liquidity problems for the Utility and allow it to continue providing essential water services to its customers, while also moving forward with its capital improvement plan to prevent future restrictions in coverage and deterioration of existing infrastructure.

3.1.2. Project Scope

The Project consists of refinancing up to US$13.00 million in existing debt for Agua SUD. The debt to be refinanced has a final maturity of roughly 30 years and an average interest rate of 4.98%. By refinancing the existing debt at a lower interest rate and maintaining the final maturity at 30 years, the Utility will reduce its annual debt service obligations, thus achieving more efficient debt service cash flows. For the first 13 years, annual debt service obligations are expected to decrease by at least US$140,000, which represents 24.3% of system repair and replacement expenses and 9.0% of the Utility's cost of water production and treatment for FY2019. The Utility is expected to save a cumulative net present value of US$2.07 million over the 30-year period.

3.1.3. Technical Feasibility

Given the refinancing nature of the Project, a technical feasibility analysis is not applicable.

[12] Source: Economic Research, Federal Reserve Bank of St. Louis, https://fred.stlouisfed.org/series/TXHIDA5URN.

3.1.4. Land Acquisition and Right-of-way Requirements

Given the refinancing nature of the Project, land acquisition and rights of way are not applicable.

3.1.5. Project Milestones

The refinancing is expected to close in November 2020.

3.1.6. Management and Operation

Agua SUD currently provides drinking water services to approximately 15,968 water hookups and 1,482 wastewater connections in its service area and is in full compliance with applicable water quality standards. It is committed to extending wastewater services to its entire service area. Development of wastewater system infrastructure was divided into two separate efforts. In 2012, new wastewater collection and treatment infrastructure for the west area was constructed and is currently in operation serving the residents of the Sullivan City and the surrounding area. The east area was subdivided into five phases due to funding constraints.

Since January 2014, NADB has been working with Agua SUD and the Texas Water Development Board (TWDB) to carry out the first phase of the eastern wastewater expansion plan, which consists of a US$48.2-million project to extend wastewater collection and treatment services to the City of Palmview and surrounding unincorporated areas. In May 2020, NADB provided a US$6 million BEIF grant, which is being used to install nearly 1,850 residential wastewater connections and decommission the same number of on-site septic tank systems and cesspools. This BEIF-funded project is currently under construction and is expected to be completed in July 2021. The Utility has entered an interlocal agreement with the City of Mission to purchase 2.5 million gallons a day of capacity to treat the new wastewater flows collected in Palmview.

Agua SUD is also undertaking a separate project to replace an estimated 14,700 obsolete water meters with new smart meters to track water usage and leaks more accurately, while reducing maintenance work.

3.2. Environmental Criteria

3.2.1. Environmental and Health Effects/Impacts

A. Existing Conditions

Agua SUD provides water and wastewater services to more than 29,000 residents of Hidalgo and Starr counties, but shortcomings still exist. Approximately 90% of homes in the service area are not connected to the wastewater collection system and currently use onsite septic tanks, which poses a significant risk for exposure to waterborne diseases associated with untreated wastewater.

Agua SUD is committed to extending wastewater services to its entire service area and has undertaken a project that will more than double its current wastewater coverage, from 9% to 21%. Although the proposed refinancing does not directly address this issue, it will provide financial relief to the Utility, which will support the continued provision of services and future system expansion and improvements.

B. Project Impacts

Since the Project consists of refinancing existing debt at a lower interest rate, the new loan is expected to save the Utility an average of US$140,000 annually, which represents about 36.0% of its budgeted expenses for supplies and materials in 2020. The Utility's customers will also benefit, as these savings will increase the financial capacity of the Utility and lessen the need for possible rate increases in order to continue providing adequate water and wastewater services. This benefit has become increasingly relevant in communities that have been severely impacted by the economic downturn caused by the COVID-19 pandemic.

By refinancing its debt, Agua SUD will also be in a better position to pursue ongoing investment in necessary capital improvement projects.

C. Transboundary Impacts

Given the refinancing nature of the Project, no transboundary impacts are anticipated as a result of the Project.

3.2.2. Compliance with Applicable Environmental Laws and Regulations

Given the refinancing nature of the Project, compliance with environmental laws and regulations is not applicable.

A. Environmental Clearance

Given the refinancing nature of the Project, no environmental clearances are required.

B. Mitigation Measures

Given the refinancing nature of the Project, no environmental mitigation measures are necessary.

C. Pending Environmental Tasks and Authorizations

There are no environmental authorizations pending for the Project.

3.3. Financial Criteria

3.3.1. Sources and Uses of Funds

The Project Sponsor has requested a NADB loan to refinance US$13.0 million in existing debt. Table 3 presents a breakdown of the estimated Project costs and proposed sources of funding.

Table 3
USES AND SOURCES OF FUNDS
(US$)

Uses	Amount	%
Utility Existing Debt*	$ 13,000,000	100.0
TOTAL	**$ 13,000,000**	**100.0**
Sources	**Amount**	**%**
NADB Loan	$ 13,000,000	100.0
TOTAL	**$ 13,000,000**	**100.0**

* Includes financing costs.

The recently approved COVID-19 Recovery Program includes loan proposals to refinance the existing debt of public entities whose mandate is aligned with the Bank's mission. Under the program, the refinancing is intended to 1) support public sponsors facing liquidity constraints or adverse refinancing conditions as a result of the COVID-19 pandemic; or 2) provide more efficient debt service cash flows for the operation and maintenance of existing and often recently upgraded infrastructure.

The Utility currently has US$36.17 million in outstanding senior debt, of which it is seeking to refinance up to US$13.0 million. The debt to be refinanced has a final maturity of roughly 30 years and an average interest rate of 4.98%. By refinancing the existing debt at a lower interest rate and maintaining the final maturity at 30 years, the Utility will reduce its annual debt service obligations, thus achieving more efficient debt service cash flows. For the first 13 years, annual debt service obligations are expected to decrease by at least US$140,000, which represents 24.3% of the system repair and replacement expenses and 9.0% of the Utility's cost of water production and treatment for FY2019. The Utility is expected to save a cumulative net present value of US$2.07 million over the 30-year period. As the Utility is a special utility district whose mission is to provide potable drinking water and sewer collection services in Hidalgo and Starr County, the savings will provide critical liquidity for the Utility to continue to provide essential services to its residents. Moreover, in April 2019, the Utility approved an incremental rate increase that was to be implemented over a five-year timeframe. The Utility did not increase its rates for over the past ten years until April 2019 while continuing to invest in infrastructure expansion. The Utility did increase rates which was mainly due to a trend of expenses increasing at a higher rate than revenue. As the Utility rates are directly linked to debt service obligations, the savings from the refinancing will help mitigate the pressure for additional rate increases to its customers.

3.3.2. Loan Payment Mechanism

The loan payment mechanism is consistent with the well-established municipal bond market in the United States. The loan will be in the form of a waterworks & sewer revenue refunding bonds, series 2020 debt instrument (the "Loan"). The source of payment for the Loan will be an irrevocable first lien on and pledge of net revenue to be derived from the system. The bonds will be issued as additional senior lien parity obligations, on parity with the outstanding senior lien parity obligations of the Utility.

Net revenue will be deposited in an interest and sinking fund ("Interest & Sinking Fund") for the payment of debt service obligations. Net revenue shall be defined as all Utility revenue derived from the operation of the system remaining after payment of all operation and maintenance expenses thereof.

As additional security, the Utility's revenue is further pledged irrevocably to the establishment and maintenance of a reserve fund ("Reserve Fund"). The Utility shall maintain an amount in the Reserve Fund at least equal to 100% of the average annual debt service requirement of the outstanding senior lien parity obligations. As the proposed project is a refinancing of existing debt, the Reserve Fund is anticipated to be fully funded at the date of issuance.

NADB will receive payments on the Loan through a paying agent contracted by the Utility during the execution of the bonds. The following diagram illustrates the loan payment mechanism.

1. The Utility collects system revenue from its customers.

2. Utility gross revenue will first cover the payment of all operation and maintenance expenses.

3. Net revenue will be deposited into the Interest & Sinking Fund designated for the payment of debt service obligations.

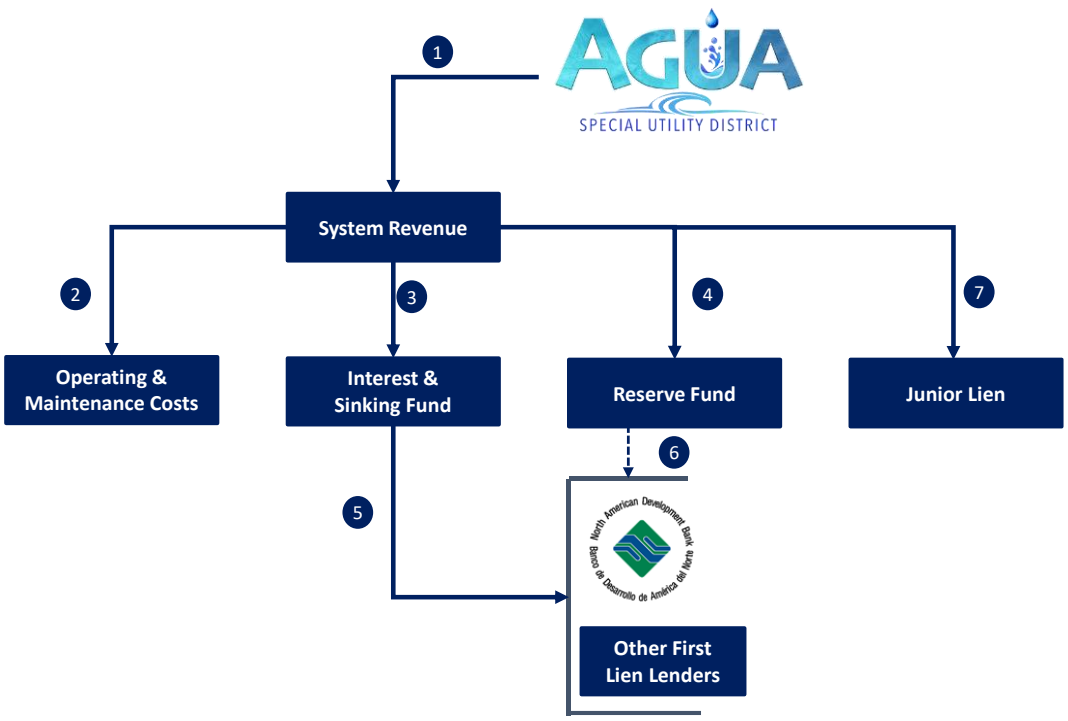
4. So long as the Reserve Fund is not fully funded, the Utility will deposit required level into the Reserve Fund. As the project is a refinancing of existing debt, the reserves requirement has been fully funded.

5. Through the paying agent, the Utility will pay semi-annual interest and annual principal debt service payments to NADB.

6. In the event the Net Revenue deposited into the Interest & Sinking Fund are insufficient to cover debt service, the Utility transfer funds from the Reserve Fund to cover debt service obligations.

7. After the payment of debt service and debt service reserve for first lien obligations, net revenue is to cover junior lien obligations, such as lease purchase agreements.

Figure 3
LOAN PAYMENT MECHANISM



3.3.3 Financial Analysis of the Source of Payment

The purpose of this section is to perform a thorough analysis of the Utility and the sufficiency of its principal source of payment for the Loan. The analysis considers the Utility's existing obligations, as well as the new projected obligations to be contracted under the debt refinancing.

A. Utility System

Municipal utilities are public enterprises providing essential services with a monopoly or near-monopoly over the service area. Unlike general governments, these entities do not have broad taxing power, but instead derive its revenue from rate charges to its customers. Debt is typically secured by a pledge of the system's net revenue.

The institutional framework of the municipal utility revenue bonds is considered strong but ultimate recovery rates on defaults is weak. Over the last 48 years, only eight defaults on municipal utilities have occurred, yet the average ultimate recovery rate is at 46%.[13] Specifically, two defaults have occurred on water/sewer utilities revenue bonds, with one occurring in 2008 and another in 2012. The historical average ultimate recovery rate water/sewer revenue defaulted debt is 54%. As a result, even though the last half century has recorded very strong default rate, it is imperative to evaluate the underlying fundamental credit indicators.

[13] Source: Moody's Investor Service, US Municipal Bond Defaults and Recoveries 1970-2019, July 15, 2020.

Asset Size and Condition:

The condition of the Utility's capital assets determines its ability to comply with environmental regulations and continue delivering adequate service with existing resources. Utilities that delay investing into their systems, by replacing and modernizing aging plant and equipment, often find it more expensive when deferred. Furthermore, systems that deteriorate often run out of compliance with environmental regulations. A summary of the Utility's historical asset condition is presented in Table 4.

Table 4
UTILITY ASSET SIZE AND CONDITION

	2015	2016	2017	2018	2019
Capital assets, gross	$152.38	$156.61	$166.12	$188.83	$212.55
Accumulated depreciation	(57.84)	(61.79)	(65.66)	(69.18)	(73.16)
Capital assets, net	94.54	94.81	100.47	119.64	139.40
Depreciation	3.95	3.95	3.88	3.81	3.98
Years remaining	23.9	24.0	25.9	31.4	35.1

Over the last five years, the Utility's net capital assets have grown at an average annual rate of 10.2%, with the most significant additions within the last two years. This asset growth demonstrates the Utility's investment and expansion of its system. The expected system useful life, calculated as net capital assets divided by the annual depreciation, increased from 23.9 years to 35.1 years from 2015 to 2019. A system useful life of 35.1 years is comparable with AA rated utilities.[14] In regard to its size, the Utility spent US$7.84 million on its maintenance and operation, excluding depreciation, which is comparable to BBB rated utilities.[15]

Customer Base

The strength and diversity of its customer base drives the Utility's ability to generate sufficient revenue. The income level of residents gives them the capacity to bear higher rates to fund operations, capital improvements and debt service.

As the Utility serves several smaller cities within Hidalgo and Starr Counties, the average median household income (MHI) of its customers is US$33,032, which is considerably less that the national average of US$60,293.[16] The Utility service area has a MHI that is 54.8% of the national average, which is comparable to BB and BBB-rated utilities.

[14] Source: Moody's Investor Service, US Municipal Utility Revenue Debt, October 19, 2017
[15] Ibid.
[16] Source: U.S. Census Bureau (https://www.census.gov/programs-surveys/popest.html?intcmp=serp).

Figure 4
2019 WATER & SEWER ACCOUNTS BY CUSTOMER TYPE

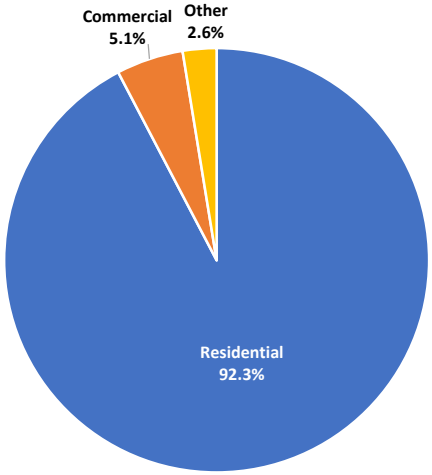


Figure 4 demonstrates the Utility's customer base is heavily derived from the residential market, accounting for 92.3% of the water and sewer accounts. There has been minimal volatility in the allocation of customer type over the last five years, as residential customers accounted for 91.9% in 2015. Since 2015, customer accounts have grown at an average annual rate of 3.5% totaling roughly 17,400 accounts at the end of 2019.

With such a heavy concentration in residential customers and a service area wealth that is economically stressed, the Utility may have difficulty implementing higher customer rates above the approved marginal increase from 2019 through 2023.

Water and Wastewater Rate Affordability

In 2019, the Utility hired a rate consultant and approved a rate increase to marginally increase the user water and wastewater rates over a five-year period from 2019 to 2023. As the Utility had not increased rates for the previous decade, the rate increase was implemented due to a trend of operating expenses increasing at a higher rate than operating revenue. The Utility has kept with the rate increase schedule for 2019 and 2020. Table 5 provides a projection of customer rates using the historical average consumption of 8,000 gallons of water per month and 5,700 gallons of wastewater per month.

Table 5
RATE AFFORDABILITY ANALYSIS

	2019	2020	2021	2022	2023
8,000 gallons of water	$35.02	$36.04	$37.05	$37.99	$39.00
5,700 gallons of wastewater	22.65	24.60	25.86	27.11	28.36
Monthly cost per household (CPH)	**57.67**	**60.64**	**62.91**	**65.10**	**67.36**
Annual CPH	**691.98**	**727.66**	**754.90**	**781.18**	**808.30**
Median Household Income (MHI)	**33,032**	**33,032**	**33,032**	**33,032**	**33,032**
CPH / MHI	**2.1%**	**2.2%**	**2.3%**	**2.4%**	**2.4%**

Using the historical average customer consumption, the Utility provided water and wastewater services at 2.1% of MHI in 2019 and is expected to provide services at 2.4% of MHI by 2023. A cost below 1.7% of the MHI is considered affordable. The current and scheduled ratios indicate the residents carry a heavy burden for essential services. The refinancing of existing debt will provide cash flow savings will alleviate pressure to further increase customer rates to cover maintenance, operations and debt service obligations.

B. Historical Analysis of the Utility

The audited annual financial statements of the Utility are prepared in accordance with accounting principles generally accepted in the United States of America. For fiscal years 2015-2019, the Utility received an unmodified or “clean” opinion from an independent auditor.

The District’s basic financial statements are comprised of three components: 1) The Statement of Net Position (Balance Sheet) which include all of the District’s assets and liabilities and provides information about the nature and amounts of investments in resources (assets) and obligations to creditors (liabilities); 2) The Statement of Revenue, Expenses and Changes in Net Position shows the business-type activities of the District and provides information regarding income and expense, both operating and non-operating, that affect the Net Position; and 3) The Statement of Cash Flows. The primary purpose of this statement is to provide information about the District’s cash receipts and cash payments during the period using the direct method of reporting cash flows from operating, investing, and capital and noncapital financing activities.

A summary of the audited financial statements from 2015 to 2019 is presented in Table 6 to provide an overview of the Utility’s financial and operational performance.

Table 6
AGUA SUD FINANCIAL STATEMENTS
(US$ Millions)

STATEMENT OF NET POSITION (BALANCE SHEET)	2015	2016	2017	2018	2019
Unrestricted cash and investments	$ 4.72	$ 4.71	$ 4.14	$ 2.49	$ 1.04
Other current assets	1.15	1.25	1.25	1.35	1.47
Restricted cash	48.82	45.22	40.57	30.92	22.15
Capital assets, net	94.54	94.81	100.47	119.64	139.40
Other noncurrent assets	0.26	0.37	0.42	0.47	0.46
Total assets	**$ 149.48**	**$ 146.37**	**$ 146.84**	**$ 154.87**	**$ 164.52**
Current liabilities	$ 1.42	$ 1.39	$ 1.50	$ 1.92	$ 2.15
Payable from restricted assets	30.86	30.44	26.02	15.24	8.99
Long-term debt	33.70	33.16	32.43	31.46	36.17
Capital leases	0.00	0.00	0.00	8.19	12.08
Total liabilities	**65.98**	**65.00**	**59.95**	**56.81**	**59.38**
Invested in capital assets	74.56	71.83	78.24	90.31	98.19
Restricted	4.90	4.60	4.38	3.54	6.01
Unassigned	4.04	4.94	4.27	4.20	0.94
Total net position	**83.50**	**81.37**	**86.89**	**98.06**	**105.13**
Total liabilities & net position	**$ 149.48**	**$ 146.37**	**$ 146.84**	**$ 154.87**	**$ 164.52**

STATEMENT OF REVENUE, EXPENSES AND CHANGES TO NET POSITION	2015	2016	2017	2018	2019
Metered water sales	$ 7.57	$ 8.23	$ 8.42	$ 8.07	$ 8.64
Non-metered sewer services	0.33	0.33	0.35	0.36	0.38
Fees and other revenue	0.86	0.81	0.78	0.94	0.92
Total operating revenue	**8.76**	**9.37**	**9.56**	**9.36**	**9.93**
Maintenance and operations	(6.22)	(6.82)	(7.07)	(7.30)	(7.84)
Operating Income	**2.54**	**2.55**	**2.49**	**2.06**	**2.10**
Depreciation	(3.95)	(3.95)	(3.88)	(3.81)	(3.98)
Interest expense	(1.17)	(1.30)	(0.95)	(1.12)	(1.63)
Capital contributions	1.86	0.48	6.39	13.91	10.65
Other revenue/(expenses)	(0.18)	0.09	(0.42)	0.13	(0.07)
Non-operating income/(expenses)	**$ (3.44)**	**$ (4.68)**	**$ 1.13**	**$ 9.11**	**$ 4.98**
Change in net position	**$ (0.90)**	**$ (2.13)**	**$ 3.63**	**$ 11.17**	**$ 7.07**
Beginning fund balance	$ 84.57	$ 83.50	$ 81.37	$ 86.89	$ 98.06
Adjustment	(0.17)	0.00	1.89	0.00	0.00
Ending fund balance	**$ 83.50**	**$ 81.37**	**$ 86.89**	**$ 98.06**	**$ 105.13**

STATEMENT OF CASHFLOWS					
	2015	2016	2017	2018	2019
Cash from operating activities	$ 2.11	$ 2.36	$ 2.59	$ 2.14	$ (1.92)
Cash from investment activities	0.02	(2.22)	0.08	0.41	(1.50)
Cash from financing activities	33.58	(5.99)	(7.90)	(13.60)	(5.29)
Increase/(decrease) in cash	**$ 35.70**	**$ (5.85)**	**$ (5.23)**	**$ (11.04)**	**$ (8.72)**
Beginning cash balance	$ 17.83	$ 53.54	$ 47.68	$ 42.45	$ 31.41
Ending cash balance	**$ 53.54**	**$ 47.68**	**$ 42.45**	**$ 31.41**	**$ 22.69**

Table 7
AGUA SUD FINANCIAL RATIOS

	2015	2016	2017	2018	2019
Current ratio	4.12	4.27	3.59	1.99	1.17
Senior debt service coverage ratio	1.44	1.35	1.54	1.06	1.03
Junior debt service coverage ratio	1.44	1.35	1.54	1.06	0.75
Days unrestricted cash on hand	277	252	214	124	48
Days cash on hand	3,143	2,673	2,309	1,670	1,080
Debt to operating revenue	3.85	3.54	3.39	3.36	3.64
Unrestricted cash as a % of revenue	53.9%	50.2%	43.3%	26.6%	10.5%

As shown in Table 6, the Utility's primary and most stable source of revenue is from metered water sales, accounting for 87.0% of operating revenue in 2019 and a 5-year average of 87.1%. Non-metered sewer services account for only 3.8% of operating revenue in FY2019 and have a five-year average of 3.7%. Starting in 2017, the Utility invested in a wastewater expansion project with a total project cost exceeding US$40 million and incurred debt for roughly US10.5 million. The project is near completion and nonmetered sewer revenue are expected to increase with the new service connections.

The five-year historical analysis demonstrates a growth in system size while the condition of many other financial indicators has significantly deteriorated. The Utility's capital assets grew from US$94.54 million in FY2015 to US$139.40 million in FY2019, or at an average annual growth rate of 10.2%. During this timeframe, the Utility invested in critical infrastructure to expand and maintain services, resulting in the depletion of cash, an increase of annual debt service obligations, and an increase in maintenance and operation expenses.

The Utility's liquidity position has experienced significant deterioration over the last two years. The current ratio, which measures how many times unrestricted short-term assets can cover short term liabilities, was at a strong position of 3.59x at the end of FY2017 and deteriorated to 1.17x by the end of FY2019. Also, the ratio of days unrestricted cash on hand, which measures how many days the unrestricted cash position can cover operating expenses, was at a healthy position of 214 days at the end of FY2017 and deteriorated to 48 days at the end of FY2019. Moreover, the unrestricted cash as a percentage of revenue was at 43.3% at the end of FY2017 and

decreased to only 10.5% at the end of FY2019. These three ratios indicate a negative trend and a weak liquidity position. With a weak liquidity position, the Utility must now rely on its restricted cash position to cover potential shortfalls.

Over the past five years, the Utility held a strong total cash position, with the majority held as restricted cash. A summary of the restricted cash position is presented in Table 8.

Table 8
RESTRICTED CASH
(US$ Millions)

	2015	2016	2017	2018	2019
Capital improvements reserve	$3.07	$3.22	$3.60	$3.86	$4.60
Construction in progress	44.09	40.25	35.04	25.04	14.91
Debt service reserve	1.65	1.76	1.94	2.03	2.64
Total Restricted Cash	**$48.82**	**$45.22**	**$40.57**	**$30.92**	**$22.15**

As shown in Table 8, the majority of the restricted cash position is cash received from grant and debt funds for construction in progress. The majority of the cash for construction in progress is held in escrow. The Utility holds a capital improvement reserve of US$4.60 million as of FY2019. Cash flows spent for capital improvements averaged US$4.37 million during FY2015-FY2017 and averaged US$22.22 million during the last two years. The cash flows used for capital improvements are also reflected in the reduction in restricted cash in construction in progress.

At the end of 2019, the Utility held a debt service reserve of US$2.64 million, representing 100.6% of the senior debt service for the same year. A covenant in its existing debt obligations require a debt service reserve equivalent to twelve months of debt service obligations. It is a positive indicator that reserves are maintained and funded. The debt service reserve is a cushion to absorb any additional shortfall in revenue or an increase in operating expenses.

Senior long-term debt has remained relatively stable with a position of US$33.70 million and US$36.17million in FY2015 and FY2019, respectively, accounting for a net growth of 7.3% over the past five years. However, the Utility has issued US$14.02 million in new senior debt since 2015, increasing annual debt service by US$0.85 million or 23.1%, from 2015 to 2019. As most of the construction related to the new debt is near completion, increased revenue related to the capital investment has yet to occur while payments for debt service have initiated. Moreover, in 2018, the Utility entered into US$11.88 million in energy savings performance contracts for a smart water meter system, high-efficiency LED lighting improvements, and a 275kw PV solar project. The energy savings performance contracts were financed through lease purchase agreements, which are considered subordinate to the first lien on and pledge of net revenue. The project costs are financed and repaid with the savings over the next fifteen years. The contractor will also guarantee annual savings equivalent to the associated debt service. The savings are expected to initiate during the current 2020 fiscal year, yet the Utility spent US$0.80 million in related debt service during 2019. These lease purchase agreements are listed as long-term liabilities in the audited financial statements and are subordinate to the first lien on and pledge

of net revenue allocated to the Loan. Annual debt service related the lease purchase agreements is US$1.18 million for 2020 through 2023, representing 16.1% of the 2020 budget for operating expenses.

Net operating income has also shown a negative trend, specifically within the last two fiscal years. Since 2015, operating revenue had an average annual growth of 3.2%, while operating expenses grew at an average annual rate of 6.0%. In 2019, the Utility hired an external consultant to conduct a water and wastewater rate study and a long-term financial plan. On April 1, 2019, the Utility used the recommendation from the consultant and approved a user rate increase to be implemented from 2019 to 2023. The consultant estimates the rate increases alone will provide additional water and wastewater revenue of US$0.49 million in 2020 and US$1.68 million in 2023. As the rate increase will marginally increase every year until 2023, the rate increase will increase water and sewer revenue by roughly US$0.50 million from the previous year until 2023, assuming the same customer consumption. The Utility has implemented the scheduled rate increases during 2019 and 2020. The consultant also estimates an average annual increase to maintenance and operating expenses of 3.2% from 2019 through 2023. In April 2019, the Utility approved a rate increase to be implemented from 2019 to 2023.

For FY2019, the Utility recorded a senior debt service coverage ratio (DSCR) of 1.03x, indicating the use of unrestricted cash to cover full payment of the junior lien lease purchase agreements. The poor operating fiscal year is primarily explained by two components. First, as described above, the Utility heavily invested in system improvements to expand its services and generate operational savings. Yet the associated debt service obligations initiated while during construction, not allowing for an increase in revenue or operational savings to offset. The second component is due to poor fiscal budgeting. When comparing the FY2019 budget to the FY2018 financial statements, the Utility budgeted a US$1.42 million or 15.1% growth in operating revenue and a US$0.14 million or 1.9% increase in operating expenses. At the end of FY2019, the Utility recorded a US$0.57 million or 6.3% increase in operating revenue and a US$0.53 million or 7.3% increase in operating expenses, resulting in US$1.24 million less in operating income from the approved budget. As a result, the Utility overestimated revenue and underestimated expenses. Primarily, the Utility overestimated the metered water revenue increase from the approved rate increase and the water meter upgrades. Also, it underestimated the cost of water production and treatment expenses as it anticipated a renegotiation on a water supply contract.

The FY2020 approved budget anticipates a DSCR of 1.51x on senior debt. The 2020 budget estimates a US$0.80 million or 8.1% increase in operating revenue, compared to the 2019 growth of US$0.57 million or 6.1%, and the five-year average annual growth rate of 3.2%. Also, the 2020 budget estimates a US$0.51 million or 6.6% decrease in the operation and maintenance expenses, compared to a 2019 expense growth of US$0.53 million or 7.3%, and a five-year average annual expense growth rate of 6.0%. The expected revenue growth is driven from the approved user rate increase, the implementation of the water meter upgrades, and additional wastewater connections. The significant decrease in operating expenses is driven by the savings from the energy savings performance contract and the renegotiation of a water supply contract. The renegotiation of the water supply was executed in the first quarter of 2020, with annual savings of US$0.40 million. At the end of June 2020, which accounts for half of the fiscal year, the Utility recorded US$5.14 million in operating revenue and US$3.52 million in operating expenses,

representing 48% of budgeted operating revenue and 48% of budgeted operating expenses, respectively. As the June 2020 budget-to-actual is within a reasonable margin of error, it gives indication of improved budgeting practices when compared to 2019.

In summary, over the past five years, the Utility has invested in capital improvement projects to increase its size, efficiency, services and net position, but the time lag to project completion has deteriorated its overall financial position. According to the existing debt covenant which requires a DSCR of 1.25x on the average annual debt service payment, the Utility may require additional user rate increases to cover all future operating, maintenance, and debt service payments. As the negative economic effects of the COVID-19 pandemic have placed additional stress on the community and its residents, an additional water and sewer rate increase will place a significant burden on its residents, whose rates are already considered high. The refinancing of existing debt is expected to decrease annual debt service payments by US$140,000 during the first thirteen years, providing debt service relief during a season of financial distress and alleviating the pressure to further increase user rates.

C. Financial Projections of the Utility

To determine whether the Utility can meet its obligations associated with the Project, NADB performed a financial analysis based on the information provided by the Utility. Projections were developed based on historical trends, current efficiency levels, the 2020 budget, the rate consultant projections, as well as the current economic outlook. The Bank will use conservative projections that stress growth projections while also incorporating projections from the rate consultant and the recent projects taken by the Utility. The main assumptions include:

- *Basis for projections*: Agua SUD historical financial statements, consultant rate study & long-term financial plan, and FY2020 Budget.
- *Operating Revenue*: For FY2021 through FY2023, the revenue increase derived from the approved rate increase determined by the rate consultant. For FY2024 and thereafter, using the historical five-year average annual growth rate.
- *Operating and Maintenance Expenses (O&M)*: Based on a growth rate equivalent to the historical 5-year average plus inflation.
- *Senior Debt Service*: Based on the Utility's current outstanding senior debt and including the Project of the refinancing of existing debt.
- *Junior Debt Service*: Based on the Utility's current outstanding junior debt.
- *Additional Senior Debt Service*: Additional senior debt service was modeled when the projected Net Revenue were considered sufficient. An assumption of a 30-year tenor and a 5% interest rate was used for all additional senior debt service. Under the conservative O&M projections, which do not account for project efficiencies and maintains a high annual growth rate, the Utility will be limited in capital improvement investment within the first ten years without further increases to the customer rates.

Table 9 shows projected cash flows for the duration of the NADB Loan.

Table 9
PROJECTED CASH FLOW
(US$ Thousands)

Year	Gross Revenue	O & M Expenses	Net Revenue	Senior Debt Service	Senior DSCR	Junior Debt Service	Junior DSCR
2021	$ 11,683	$ 7,907	$ 3,776	$ 2,548	1.48x	$ 1,178	1.01x
2022	12,563	8,399	4,163	2,539	1.64x	1,178	1.12x
2023	13,492	8,899	4,593	2,550	1.80x	1,178	1.23x
2024	13,910	9,410	4,499	2,543	1.77x	1,076	1.24x
2025	14,341	9,931	4,410	2,544	1.73x	1,076	1.22x
2026	14,787	10,463	4,324	2,664	1.62x	1,076	1.16x
2027	15,248	11,006	4,242	2,681	1.58x	1,076	1.13x
2028	15,724	11,560	4,164	2,671	1.56x	1,076	1.11x
2029	16,216	12,125	4,091	2,675	1.53x	1,076	1.09x
2030	16,725	12,702	4,023	2,686	1.50x	1,076	1.07x
2031	17,251	13,291	3,960	2,670	1.48x	1,076	1.06x
2032	17,794	13,891	3,903	2,672	1.46x	1,076	1.04x
2033	18,356	14,504	3,852	2,872	1.34x	727	1.07x
2034	18,936	15,129	3,807	2,621	1.45x	189	1.36x
2035	19,536	15,767	3,769	2,671	1.41x	0	1.41x
2036	20,157	16,418	3,738	2,665	1.40x	0	1.40x
2037	20,798	17,082	3,715	2,555	1.45x	0	1.45x
2038	21,460	17,760	3,700	2,552	1.45x	0	1.45x
2039	22,145	18,452	3,693	2,683	1.38x	0	1.38x
2040	22,853	19,157	3,695	2,674	1.38x	0	1.38x
2041	23,584	19,877	3,707	2,674	1.39x	0	1.39x
2042	24,340	20,612	3,728	2,622	1.42x	0	1.42x
2043	25,121	21,362	3,760	2,737	1.37x	0	1.37x
2044	25,929	22,126	3,803	2,740	1.39x	0	1.39x
2045	26,764	22,907	3,857	2,937	1.31x	0	1.31x
2046	27,626	23,703	3,923	2,859	1.37x	0	1.37x
2047	28,518	24,515	4,003	2,860	1.40x	0	1.40x
2048	29,440	25,344	4,095	3,117	1.31x	0	1.31x
2049	30,392	26,190	4,202	3,023	1.39x	0	1.39x

DSCR = Debt service coverage ratio; O&M = Operation and maintenance.

D. Project Debt Service Coverage Ratio (DSCR)

In accordance with NADB loan policies, the formula for calculating the DCSR for the proposed loan shall be based on the characteristics of the transaction and/or borrower and payment mechanism. For this transaction, the DCSR is defined as the Net Revenue, which is equal to Gross Revenue – Operation & Maintenance Expenses (O&M), divided by Senior Debt Service (Principal + Interest) for all debt with a senior pledge of Net Revenue.

Pursuant to NADB loan policies, the senior debt service payments have been structured to maintain at all times a minimum DSCR of at least 1.25x throughout the term of the Loan in accordance with the following formula:

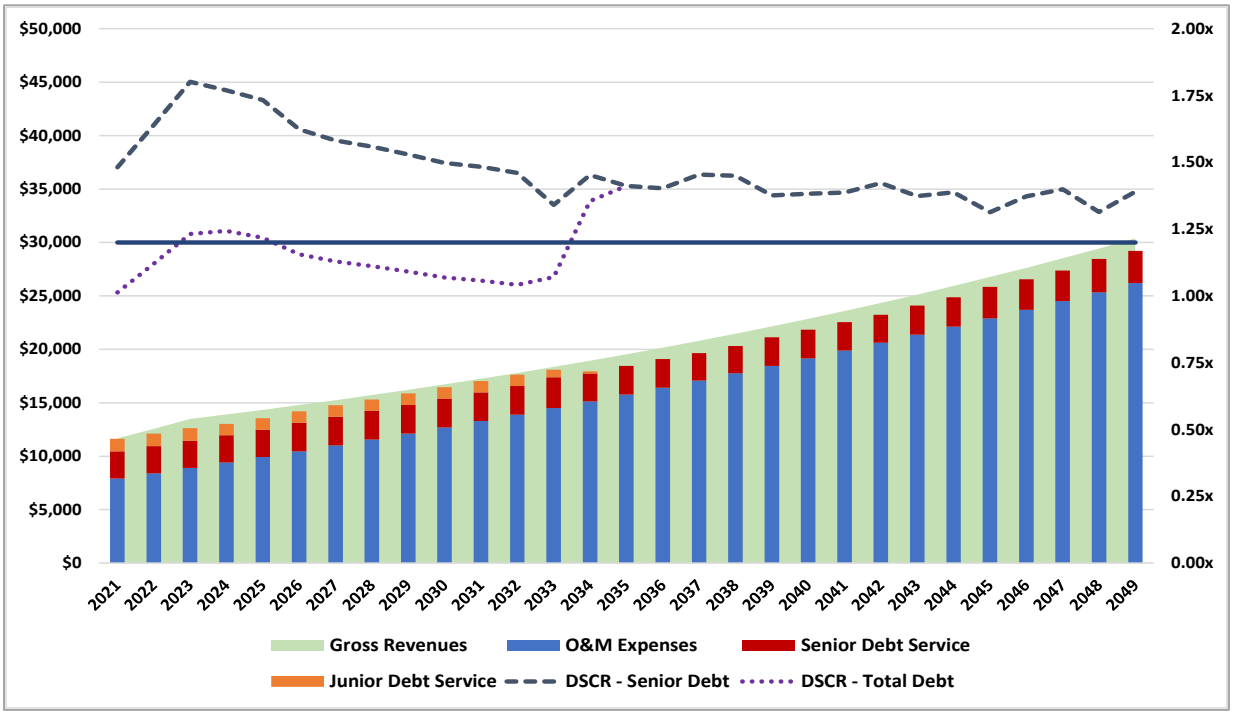
$$DSCR = \frac{(Gross\ Revenues - O\&M\ Expenses)}{(Senior\ Principal + Senior\ Interest)}$$

=

$$DSCR = \frac{Net\ Revenues}{Senior\ Debt\ Service}$$

Figure 5 illustrates the projected distribution of the Utility's cash flows.

Figure 5
PROJECTED CASH FLOW ANALYSIS
(US$ Thousands)



DSCR = Debt service coverage ratio; O&M = Operation and maintenance.

Based on this scenario, the Utility will have sufficient revenue to cover all obligations throughout the life of the loan. During the first thirteen years, the Utility will have a high senior debt service coverage ratio, in excess of 1.4x for every year, but when including the junior debt service, the total debt service coverage ratio is in the range between 1.1x and 1.2x. It should be noted, this scenario does not include the projected efficiencies and guaranteed savings from current projects associated with the junior debt service. This scenario stresses the Utility's capacity to cover obligations. As the Project is secured by an irrevocable first lien on and pledge of net revenue and is considered as senior debt, NADB considers the pledged cash flows to be sufficient to cover the financial obligations of the Project.

3.3.4. Risk Analysis

The purpose of this section is to assess the Utility's ability to address any adverse changes that could impact the repayment of the debt.

A. Quantitative Project Risks

1. *Increase in Operating Expenses*: From 2015 through 2019, operating expenses increased at an average annual rate of 6.0% while operating revenue grew by 3.2%. In response to the negative trend, the Utility hired a consultant to conduct a rate study and long-term financial plan. In April 2019, the Utility approved a schedule to marginally increase customer rates until the 2023. Additionally, in 2018, the Utility invested in US$11.88 million in system infrastructure with expected and guaranteed savings to operating expenses. In 2019, the Utility paid debt service related the US$11.88 million while the improvements were still in construction, and therefore not generating savings. The savings are expected to be realized FY2020. In relation to the health and age of the system, there is roughly 35.1 years remaining of expected deprecation at the end of 2019, up from 23.9 years remaining in 2015. As low remaining years of deprecation indicate potential system problems and increased operating costs, the Utility's remaining life is considered healthy and a lower risk.

2. *Decrease in Revenue*: The Utility's primary source of revenue is water and wastewater services, which are essential for all residents, and the Utility is the sole provider within its jurisdiction. The monopoly of essential services provides revenue stability; however, variability can occur as the residents control consumption levels and weather patterns can affect demand. As a safeguard to a decrease in revenue and an increase in operating expenses, the Utility provides a rate covenant requiring a minimum debt service coverage ratio of 1.25x for the average annual debt payment. However, as the negative economic effects of the COVID-19 pandemic have placed additional stress on the community and its residents, an additional water and sewer rate increase will place a significant burden on its residents whose rates are already considered high. An additional safeguard is the requirement of a debt service reserve fund equal to 100% of the average annual debt service requirement of the outstanding senior lien parity obligations. At the end of 2019, the Utility held a debt service reserve of US$2.64 million, representing 100.6% of the senior debt service for the same year. Additionally, the refinancing of existing debt is expected to decrease annual debt service payments by US$140,000 during the first thirteen years, providing debt service relief during a season of financial distress and alleviating the pressure to further increase user rates.

B. Qualitative Project Risks

1. *Financial/Administrative*: Since 2015, the Utility has invested US$60.18 million in system improvements, increasing its size, efficiency, service area and net position. However, since the Utility financed US$26.47 million of the improvements with debt and lease agreements, total annual debt service increased by US$1.21 million during the same period, causing a deterioration to its financial position. Specifically, debt service initiated

during the construction phase, increasing the total obligations without the offsetting revenue increases. As the existing projects are completed or are nearing completion, revenue is expected to offset the increase in debt service obligations.

Also, there has been both positive and negative measures of the current management. The hiring of an external rate consultant, and good financial reporting indicated by a continuous, clean and up to date audited financial statements provide examples of prudent management. However, in the crucial component of budgeting management, the 2019 budget-to-actual demonstrated poor practices. The June 2020 budget-to-actual is within a reasonable margin of error, giving indication of improved budgeting practices when compared to 2019.

2. *Economic*: The Utility serves a low-income community with poverty levels in the highest brackets nationwide. The current economic situation is expected to be as challenging for the community as any other U.S community. However, recent data is showing a relatively quicker recovery in state of Texas and may prove to be less of a recession than originally expected.[17] As previously mentioned, water and wastewater services are considered essential, and their use may not be as negatively impacted as other non-essential services.

3. *Political/Legal*: The risk associated with changes in administration or government officials would not result in non-payment of the Loan. The Utility, by approval of the bond order, places an irrevocable first lien on and pledge of net revenue and authorizes any rate increase requirement to pay for debt service obligations.

4. PUBLIC ACCESS TO INFORMATION

4.1 Public Consultation

NADB published the draft certification and financing proposal for a 30-day public comment period that began on September 10, 2020 and ended on October 10, 2020, with no comments received.

4.2 Outreach Activities

NADB also conducted a media search to identify potential public opinion about the Project. No specific articles or references to the Project was found. No public opposition to the Project has been detected.

[17] Source: Texas Economic Indicators: https://www.dallasfed.org/research/indicators/tei/2020/tei2009.aspx

5. RECOMMENDATION

Certification Criteria Compliance

The Project falls within the eligibility of the NADB COVID-19 Recovery Program, since Agua SUD is a public entity that provides services aligned with the NADB mission and that are eligible for NADB financing under its certification criteria. It is also located within the border region as required under the NADB Charter. The 30-day public comment period concluded on October 10, 2020, with no comments received. The Project review performed by the NADB Chief Environmental Officer confirms that the Project complies with all the certification requirements, and there are no pending activities required for compliance.

Funding Criteria Compliance

Considering the Project's characteristics and based on the financial and risk analysis, the proposed Project is financially feasible and presents an acceptable level of risk. Furthermore, the proposed financing meets all the requirements of NADB's loan policies and the NADB COVID-19 Recovery Program. Therefore, NADB proposes providing a market-rate loan for up to US$13.0 million to Agua SUD, in accordance with the terms and conditions proposed in Annex B.

Accordingly, based on the foregoing conclusions as supported and presented in detail in this certification and financing proposal, NADB hereby recommends certification of the project and approval of the proposed Loan.