

STATEMENT OF QUALIFICATIONS FOR
**IMPACT FEE STUDY
REVIEW AND UPDATE**

SIDNEY, MT
11/20/2023

AE2S Nexus
405 3rd Street NW, Suite 205
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IMPACT FEE STUDY EXAMPLE (Included separately)

To best demonstrate the product you will receive by working with us, we've included similar successful project study deliverables for the City of Belgrade, MT as an example.



November 20, 2023

Jeff Hintz
Public Works Director
115 2nd Street S.E.
Sidney, Montana 59270

Re: Developing Fair, Equitable, and Defensible Impact Fees

Dear Mr. Hintz,

We are excited to bring our experience to assist the City of Sidney in updating your impact fees to tackle the infrastructure and demand-driven challenges on the horizon. You will benefit from the experience helping numerous communities across Montana with Montana-specific impact fee updates. Working within this framework, we will tailor the fees and methodology to fit what makes your community unique. In the end, you will be confident that you can move ahead with critical projects knowing your impact fees will be best positioned to help support their financial costs:

Tailored Approaches for Better Results: Our team takes the critical components of the impact fee best practices and tailors them to your community's unique circumstances - we don't do a cookie-cutter study. This means that in the end, your fees will be more appropriately aligned with your needs. This has been proven from when we helped the City of Billings and the City of Belgrade update their water and wastewater impact fee methodologies to how we've taken what works well from Montana best practices to other states in the region.

Deep Montana Experience to Improve Defensibility: Fees should be fair, accurate, and defensible. Our recent Montana experience both creating and defending impact fees helps us to better recognize the key pieces that go into a truly fair and defensible fee. In the end, you benefit because you know you are treating your residents fairly and protecting the long-term interests of the community from future liability.

We look forward to discussing further our experience and how it can benefit your community. Should you have any questions, please do not hesitate to reach out to me at Ryan.Graf@ae2s.com or on my cell phone at (218) 791-5847.

Submitted in Service,
AE2S & AE2S Nexus

A handwritten signature in blue ink, appearing to read "Ryan Graf", is written over a faint, light blue circular graphic that matches the AE2S NEXUS logo.

Ryan Graf, MPA
Project Manager

1 | FIRM QUALIFICATIONS

AE2S Nexus, the financial division of AE2S with dedicated Utility Financial and Asset Management expertise, is comprised of individuals ready to assist you with your impact fee study review and update.

In 2010, AE2S, LLC formally launched AE2S Nexus, a division developed to assist public and private clients with issues beyond engineering services. From our traditional financial roots in cost of service analysis, rate design, revenue adequacy analysis, and rate modeling dating back to 1999, AE2S Nexus has grown into a complete financial resource for our clients.

AE2S Nexus provides project development and administration services, utility rate and long-term financial planning, utility management, and support with project funding and financing programs. Together, these services allow AE2S Nexus to serve as a valuable resource for our clients and partners to ensure their financial success.

AE2S Nexus is committed to serving as a financial resource in the region. Not only do we publish the Annual Utility Rate Survey which provides comparisons of utility rates across the states of Colorado, Wyoming, Montana, South Dakota, North Dakota, Utah, Iowa, Wisconsin, and Minnesota, we also publish the quarterly Source technical newsletter, which highlights utility financial issues of interest to clients in our region.

AE2S NEXUS SERVICES

 <p>UTILITY FINANCIAL MANAGEMENT</p> <ul style="list-style-type: none"> • Long-Term Rate Planning and Rate Design • Cost of Service Analysis (COSA) • Revenue Adequacy • Annual Utility Finance Review 	 <p>ASSET MANAGEMENT</p> <ul style="list-style-type: none"> • Financial Renewal & Replacement Value Projections • Condition & Operational Assessments • Sustainable Asset Management Plans 	 <p>MUNICIPAL FINANCIAL SERVICES</p> <ul style="list-style-type: none"> • Special Assessment Support • Direct Finance Director Support Services • Training and Budgeting Assistance • Billing Systems Support
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CONTACT INFORMATION

Nate Weisenburger, PE

Project Coordinator

C: 406-217-3711

Nate.Weisenburger@ae2s.com

Ryan Graf, MPA

Project Manager

C: 218-791-5847

Ryan.Graf@ae2s.com

BELGRADE IMPACT FEE REVIEW AND UPDATE

Experiencing rapid growth, the City of Belgrade undertook master plan updates for its water and wastewater systems. The City took the proactive step of retaining AE2S Nexus to create a financial master plan to guide the implementation of the utility plans. The financial master plan included water and sewer impact fee updates to account for long-range impacts of growth planning.

Based on the original work, AE2S Nexus was selected to update the City’s Parks, Fire, and Road Impact Fees. These impact fees took the similar approach of updating the City’s fees charged to account for a more accurate picture of the true cost of new development.

In total, these impact fees set the City of Belgrade up to appropriately charge development for the impacts caused on the City’s infrastructure.

Client: City of Belgrade, MT
Contact: Charity Van Kirk
 Executive Director of Financial Services
 406-388-3760
 cvankirk@belgrademt.gov

BILLINGS WATER AND WASTEWATER RATE STUDY

In 2014, the City of Billings retained AE2S Nexus to update its existing water and wastewater rate models and recommend rates for the 2015 fiscal year (FY15). As part of this update process, AE2S was asked to calculate a **System Development Fee** (SDF) for a large industrial user connecting to the wastewater system.

Our success working with the City on the initial project has resulted in two additional engagements to review and update rates as well as SDFs through FY 2025. These additional engagements included annual updates to rates for water and wastewater, updates to SDFs over the time period, review of an additional significant user (2 million gallons per day), and the introduction of a rate for nitrogen strengths in the wastewater flows.

A critical aspect of the current study is evaluating and updating the SDF models. Montana law directs that SDF models are reviewed and updated on a regular basis to ensure that costs are attributed fairly and accurately to new users connecting to the system. AE2S Nexus maintains the City’s water and wastewater SDF models to verify that the City is appropriately and fairly charging new users based on the most recent capital projections. The result of this is updated SDF rate schedules and a comprehensive report consistent with Montana statutory requirements.

An additional aspect of the most recent update for the City was reviewing the structure of the water SDF itself. We worked with a stakeholder group to identify and update how the impacts are spread to development to better reflect the varying demands across different types of users.

Client: City of Billings, MT
Contact: Jennifer Duray
 Deputy Director of Public Works
 406-657-8239
 durayj@ci.billings.mt.us

WHITEFISH IMPACT FEE LITIGATION SUPPORT

The City of Whitefish’s impact fees are the current subject of litigation. As part of that process, AE2S and AE2S Nexus were retained as expert witnesses to help determine the defensibility of the City’s impact fees. Our technical and financial team worked together to demonstrate the reasonableness of the approach and that they fit within industry best practices for impact fees. This project is ongoing.

Client: Hammer, Quinn & Shaw PLLC
Contact: Marcel Quinn
 Attorney
 406-755-2225
 marcelquinn@attorneysmontana.com

BRANDON DEVELOPMENT CHARGE REVIEW

The City of Brandon retained AE2S Nexus to update how its developer charges were structured and calculated. This review focused on what type of infrastructure was planned for which growth area for the City. The review resulted in a zoned charge based on what types of needs developers would drive within the community’s utilities system. AE2S worked with the community to fit the best practices for impact fees into the zoned approach so that they reflected how the City preferred to do business.

Client: City of Brandon, SD
Contact: Tami Jansma
 City Engineer
 605-582-6515 ext 4
 tjansma@cityofbrandon.org

HARRISBURG TRANSPORTATION IMPACT FEE

As the City of Harrisburg looked to identify and implement a new arterial fee, they retained AE2S Nexus to assist with this process. Throughout the development phase, the project team worked with both the City and interested stakeholders. The City’s need for new arterial roads was projected to outstrip the available resources and result in a larger fee structure. Listening to feedback from the area stakeholders, a fee structure was developed that recouped part of the fee at the platting stage and part of it at the building permit stage. Not only did this process reduce the burden placed on a single entity throughout the process, it allowed for the fee to be more responsive to changes in development, recognizing that at times what is platted is not always built. As a result, the remainder of the fee is collected in the final stage of the process and can be right sized for how development responds to market demands.

Client: City of Harrisburg, SD
Contact: Andrew Pietrus
 City Administrator
 605-743-5872 ext 13
 andrew.pietrus@harrisburgsd.gov

FAMILIARITY WITH ALL APPLICABLE MONTANA LAW

AE2S has provided and continues to provide rate and impact fee study services that meet the requirements spelled out in State law to municipalities in Montana. We take pride in producing comprehensive financial plans and impact fee studies. The open line of communication with the public, along with the comprehensive understanding of Montana State laws relating to impact fees, allows our team to confidently deliver appropriate and defensible results.



SIMILAR STUDIES

PROJECT	POPULATION
Impact Fee Review and Update City of Belgrade, MT	10,460
Plant Investment Charge/System Investment Charge Update Big Sky County Water and Sewer District, Big Sky, MT	3,500
Impact Fee Litigation Support Whitefish, MT	7,800
Water and Wastewater Utility Cost of Service Analysis and Rate Study City of Bozeman, MT	53,293
Infrastructure and Financial Planning City of Watford City, ND	6,390
Water and Sewer Cost of Service City of Great Falls, MT	60,442
Billings Phillips 66 Billings Refinery City of Billings, MT	117,116
Billings System Development Fee Update City of Billings, MT	117,116

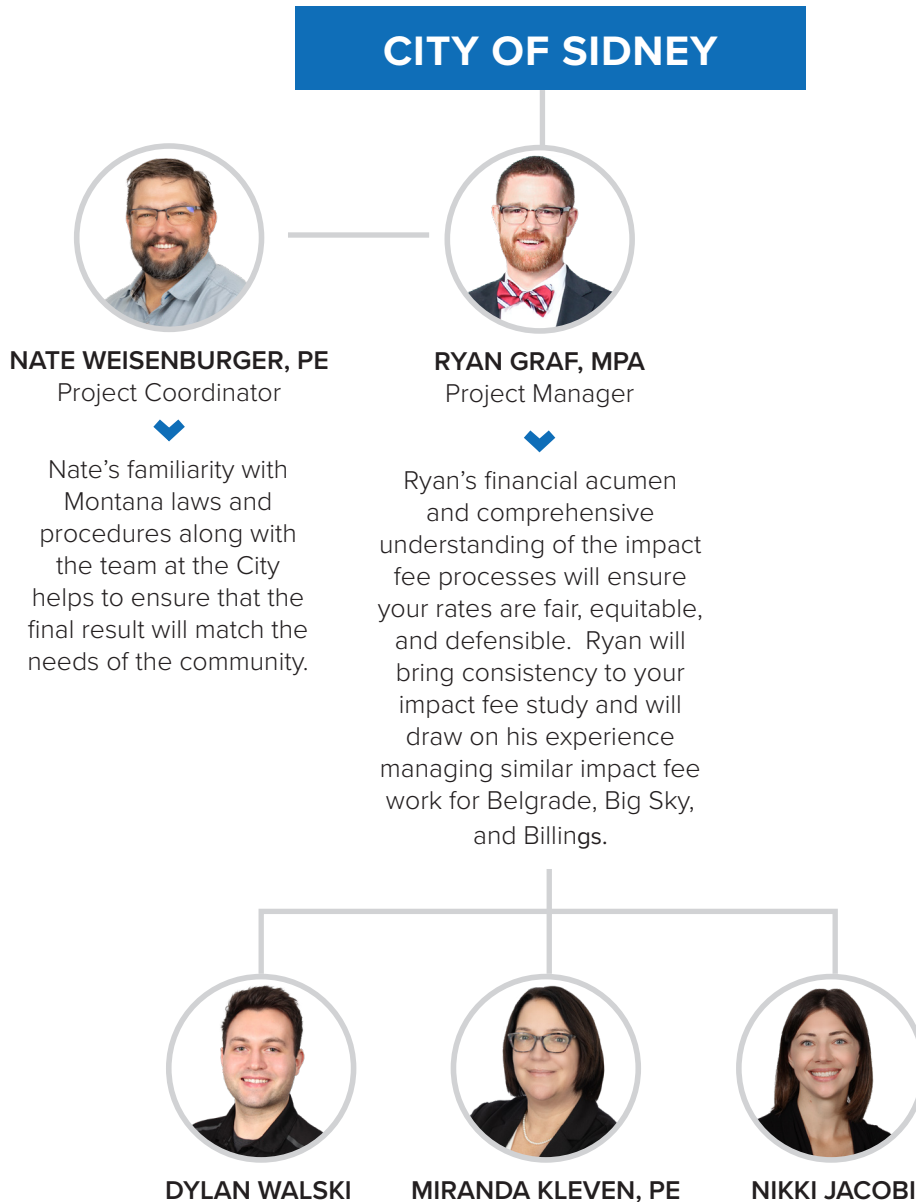
CAPABILITY TO MANAGE PROJECT OF THE SIZE AND SCOPE PROPOSED

AE2S Nexus has a proven history of successfully completing projects of similar size and scope to your project as noted in the table above.

2 | KEY PERSONNEL

We have selected a team of our best financial experts and for your Impact Fee Study Review and Update. This proven team has worked together helping numerous municipalities throughout the region to achieve their financial goals.

An organizational chart is presented below showing how the team will interact with the City of Sidney and each other. The following pages contain resumes of key project team members and their specific roles and location.



All work will be performed by AE2S Nexus staff and no portion of the project will be subcontracted to an outside firm.

Ryan Graf, MPA

Project Manager

Ryan specializes in utility management, municipal financial services, funding, and asset management. His experience includes providing financial analysis and guidance for utility and city-wide management, funding development, and rate setting. Ryan has worked with municipal water, wastewater, stormwater, and solid waste utilities, as well as rural water systems, in the evaluation of best practice consultations, energy efficiency options, and rate studies.

SPECIFIC RELEVANT EXPERIENCE

- **Financial Modeling and Growth Impacts, Horace, ND - Financial Analyst.** In order to better adapt to and address the challenges of a growing community, this project provided the City with financial modeling tools to help better track and plan for increased costs of city operations as they grow. In addition, scenario modeling was used to help better inform policy decisions surrounding new development.
- **Impact Fee Facility Plan, South Jordan, UT - Project Manager.** Led the team to revise and update the Impact Fee Facility Plan for the City's culinary water system. This plan included an additional step of identifying the costs associated with service for a planned master development to appropriately classify those items outside of the impact fee eligible costs, but within those costs that should be recouped from developers.
- **Utility Financial Planning, Big Sky County Water and Sewer District - Lead Consultant.** As Big Sky County Water and Sewer District looked to fund the largest capital project in its history, they wanted to make sure there was a sound financial plan in place now and into the future. The project team helped to construct a long-term rate model that integrated both new capital needs as well as changes to operations. In addition, the District looked to update their growth charge policy to ensure that new users who are resulting in additional capital costs are responsible for an appropriate share of those capital costs.
- **Wastewater Capital Funding Assistance and Utility Financial Plan Update, Watford City, ND - Financial Analyst.** Faced with the reality of growing utility services to meet a growing population, Ryan and the Nexus team helped the City of Watford City plan for and adopt a three-year utility financial plan that addressed critical capital investments in a new wastewater treatment plant. Key elements included developing funding alternatives, rate scenarios, and development of information material to better communicate need to outside stakeholders.
- **Belgrade Utility Financial Master Plan, Belgrade, MT - Financial Analyst.** The City of Belgrade retained AE2S Nexus to create a financial master plan to guide the implementation of the utility plans. The financial master plan includes financial evaluation of the utilities, water and sewer impact fee updates to account for long-range impacts of growth planning, identifying cost of service to various users, evaluating potential for new rate structures, and recommending rates for a 10-year period.

EDUCATION

Master of Public Affairs, Public Finance and Policy Analysis, Indiana University; Bachelor of Arts, Political Science and French, University of North Dakota

TRAINING

Financial Management: Cost of Service Rate Making, AWWA

CONTACT

Ryan.Graf@ae2s.com
T: 701-746-8087
C: 218-791-5847

WHY RYAN?

Ryan has strong financial analysis skills and has experience with asset management and planning projects for numerous clients around the region.



Ryan recently co-authored portions of the Water Environment Federation Manual of Practice 27 - Financing and Charges for Wastewater Systems.

Nate Weisenburger, PE Project Coordinator



EDUCATION

Master of Engineering,
Civil Engineering with
Environmental Emphasis,
University of North Dakota;
Bachelor of Science, Civil
Engineering, University of
North Dakota

CONTACT

Nate.Weisenburger@
ae2s.com
T: 406-268-0626
C: 406-217-3711

REGISTRATIONS

Professional Engineer:
Montana, Colorado, Idaho,
North Dakota, Alberta

Nate is a practice leader at AE2S and provides valuable insight to projects in the roles of QA/QC, Technical Resource, and Project Director. He has led comprehensive master planning and asset management projects that set the stage for the future success for multiple utilities, as well as the development of large, complex projects requiring phased implementation.

SPECIFIC RELEVANT EXPERIENCE

- **Rate Study, Great Falls, MT - Project Manager.** Completed a cost analysis (COSA), including functionalization, classification, and allocation of costs to develop a customized rate model and rate design recommendation. Also included a detailed connection fee evaluation, probabilistic rate revenue forecast, and rate policy and ordinance development.
- **Water System PER and Preliminary Design, Sidney, MT - Project Manager.** Planned services for a satellite WTP to address increased water demand related to oil extraction activity, as well as an opportunity to provide bulk water service to the Dry Redwater Regional Water System.
- **Wastewater Treatment Plant PER and Improvements, Havre, MT - Project Manager.** Provided a PER and future wastewater system plan to recommend an \$11.9-million upgrade to the City's existing activated sludge treatment plant to address ammonia, nitrate plus nitrite, and disinfection permit limits, which included a collection system inflow and infiltration study and utility rate impact assessment.
- **Water System Improvements, North Havre County Water District, Havre, MT - Project Manager.** Developed funding from the State of Montana and USDA/Rural Development and recommended rate adjustments to replace a high service pump system; install an automatic, satellite-based, meter-reading system; relocate a primary water storage facility; and alleviate low flow and pressure issues in the distribution system through pipeline loops.

Dylan Walksi Impact Fee Analyst



EDUCATION

Bachelor of Business
Administration,
Investments, University of
North Dakota

CONTACT

Dylan.Walski@ae2s.com
T: 701-746-8087

Dylan is a financial analyst who focuses on providing assistance for rate study and impact fee efforts. He has experience creating complex models designed to help meet the needs of both small and large utility systems. He also provides analysis for revenue requirements, cost of service, funding programs, and the AE2S Annual Utility Rate Survey

SPECIFIC RELEVANT EXPERIENCE

- **Water Availability Charge (WAC) and Sewer Availability Charge (SAC) Review and Update, Owatonna, MN - Financial Analyst.** The City wanted to reassess and develop proper documentation for their WAC and SAC charges while integrating the many updates into their overall city financial model. A key project element included establishing the maximum justifiable charges and balancing the approached charges with development interest and not wanted to deter growth.
- **Water and Wastewater Rate Study, Billings, MT - Financial Analyst.** AE2S Nexus has performed Cost of Service and Revenue Adequacy updates for the City since 2014. As the City has grown, the complexity of the rate design has also increased, adding new wholesale users and identifying equitable methods of distributing costs. These updates have continued to refine and develop the City's fiscal policies from how best to identify and assign costs to incorporating impact fee accounting into the overall process.
- **Wastewater and Solid Waste Rate Study, Watertown, SD - Financial Analyst.** Evaluation of the current cost of service for the wastewater and solid waste utilities. As the work progresses, the focus is making sure that structural changes to the community don't alter the right mix of rates. In the end, rate increases will be recommended to ensure reserves and future capital needs are fully funded.

Miranda Kleven, PE Impact Fee Analyst



EDUCATION

Bachelor of Science,
Chemical Engineering,
University of North Dakota

CONTACT

Miranda.Kleven@ae2s.com
T: 701-746-8087
C: 701-740-3388

REGISTRATIONS

Professional Engineer:
North Dakota

Miranda routinely works closely with clients on financial issues as an extension of their staff. She has worked with municipal water, wastewater, stormwater, and solid waste utilities, as well as rural water systems, in the evaluation and implementation of fair and equitable cost of service-based rate structures and in the evaluation of revenue adequacy.

SPECIFIC RELEVANT EXPERIENCE

- **Utility Financial Planning, Big Sky County Water and Sewer District, MT - Financial Analyst.** Constructed a long-term rate model that incorporated ongoing capital and operational needs, and developed a rate strategy designed to both generate adequate revenue and equitably charge utility users and new growth for appropriate revenue requirements.
- **Water and Wastewater Rate Study (2014-2023), Billings, MT - Financial Analyst.** Cost of service and rate design study for the City's water and wastewater utilities. The AE2S Nexus Project team completed updates to water and wastewater cost of service-based rate models, and recommended two years of rates for retail and resale water customers and retail and wholesale wastewater customers. Have been providing this service on an on-going basis since 2014.
- **Water and Wastewater Financial Plan and Rate Structure Study, Whitefish, MT - Financial Analyst.** Study that involved completion of cost of service rate analyses for the Water and Wastewater Utilities, review and development of potential modifications to the existing rate structures, and forecasted revenue adequacy for both utilities. Specifically, the study evaluated the financial impacts to the City's user base coinciding with the study of multiple wastewater treatment facility alternatives that were under consideration to address new numeric criteria for nitrogen and phosphorus removal.

Nikki Jacobi Impact Fee Analyst



EDUCATION

Bachelor of Business
Administration with Major
in Marketing, North Dakota
State University

CONTACT

Nikki.Jacobi@ae2s.com
T: 701-746-8087

TRAINING

Financial Management:
Cost of Service Rate
Making, AWWA

As a financial analyst, Nikki has experience providing utility enterprises with financial support, including cost of service, revenue adequacy, CIP planning, funding development and administration, and rate design. She has experience with utility financial analyses ranging from simple spreadsheets designed to meet the needs of a small system (with generally homogeneous user classes), to complex models created to address the specific complexities associated with larger systems.

SPECIFIC RELEVANT EXPERIENCE

- **Water Availability Charge (WAC) and Sewer Availability Charge (SAC) Review and Update, Owatonna, MN - Financial Analyst.** The City wanted to reassess and develop proper documentation for their WAC and SAC charges while integrating the many updates into their overall city financial model. A key project element included establishing the maximum justifiable charges and balancing the approached charges with development interest and not wanted to deter growth.
- **Water and Wastewater Financial Plan and Rate Structure Study, Whitefish, MT - Project Manager.** Study involved completion of cost of service rate analyses for the Water and Wastewater Utilities, review and development of potential modifications to the existing rate structures, and forecasted revenue adequacy for both utilities.
- **Growth Planning and Financial Gap Analysis, Williston, ND - Financial Analyst.** Comprehensive level of service analysis to determine the capital and operational needs of this fast-paced growth community in Western ND. The project included a broad benchmarking analysis of communities along the projected growth path of the City to establish consistent service levels as the City grows. The final component of the project was a comprehensive financial analysis of all growth impacted revenues and expenses for the key City funds analyzed to determine the

May 28, 2019

**Water & Wastewater
Impact Fees
Belgrade, MT**

Executive Summary

The City of Belgrade, MT (City) charges an impact fee designed to recoup, in part, the costs of building and providing excess system capacity to serve future growth. This impact fee is based on the value of existing infrastructure reserved for growth and the reasonable expectations of costs for future infrastructure. These costs associated with the infrastructure necessary to serve future growth are then apportioned by anticipated demand placed on the system in conjunction with the benefits received by new development to develop the overall Impact Fee.

Using information provided by the City, AE2S Nexus performed multi-step analyses for the water and wastewater utilities to:

1. Identify the area served by the utility on which to levy an impact fee,
2. Evaluate the existing system and determine available capacity,
3. Forecast future demand for system growth,
4. Allocate capital costs to either existing or future capacity,
5. Calculate the value of the applicable system assets,
6. Assign system values fairly and equitably based on capacity and standard system service profiles, and
7. Ultimately, determine the final impact fee charge per unit.

When determining the impact fee per unit, it is critical to review the system's financial and technical data to establish all reasonable cost inputs. This process included reviewing existing usage and the potential for available capacity for growth, establishing the necessary level of usage to serve new users, and the proportionate share of costs that can be reasonably attributed to each potential new unit at that service level.

This proportionate share of costs is equal to the share of growth and growth-related costs for new users. The baseline level for service is calculated for a standard residential unit using a 3/4" meter for water service. To calculate impact fees for meter sizes larger than 3/4" industry standard equivalent meter factors are applied to this original calculation for a fair and equitable proportionate charge.

In instances where a unique user profile results in demand factors that outpace standard demand factors for that user, or when their meter size is in excess of 4", the overall demand for that user should be calculated based on the unit demand factors applicable to the water and wastewater systems.

The resulting impact fee charge for the water and wastewater systems from the above analysis is presented below in Table 1.

Table 1: Summary Impact Fee Charges

	Water	Wastewater	Total
Residential	\$/unit	\$/unit	\$/unit
Single Family (3/4" Equivalent)	\$4,786	\$2,709	\$7,495
All Other (5/8" Equivalent)	\$3,191	\$1,806	\$4,997
Nonresidential			
3/4"	\$4,786	\$2,709	\$7,495
1"	\$7,977	\$4,515	\$12,492
1-1/2"	\$15,955	\$9,030	\$24,985
2"	\$25,527	\$14,449	\$39,976
3"	\$47,864	\$27,091	\$74,955
4"	\$79,773	\$45,152	\$124,925

1.0 Introduction

The City retained AE2S Nexus to conduct a water and wastewater system utility financial study to include an evaluation and update to the impact fees charged by the City for new user connections. This analysis was intended to evaluate and update the impact fees to ensure that they continue to be fair, equitable, and proportionate to the benefits received based on updated asset and capital information.

The City provides water and wastewater service to approximately 3,000 residential and commercial customers. Access to water and wastewater service is critical to continued growth and as a result, the City must look to build a system with greater capacity than is needed at the present to serve future growth. Building and providing this excess capacity comes with a cost that is borne by existing customers of the system. To recoup a portion of these costs, the City has historically charged an impact fee to new connections in order to fund the additional service capacity required to serve that new connection with water or wastewater service.

An impact fee is a charge directly tied to the cost of building excess capacity to serve new growth. This direct linkage is important to the legal basis for such fees and is called the rational nexus. The three major components to the rational nexus test are 1) the connection between the need for a facility and the development being charged, 2) a demonstrable benefit to the new growth, and 3) that the charge is proportionate to the benefit received. This analysis is designed to demonstrate compliance with the rational nexus as well as all other requirements under Montana law.

Impact fees are developed based on the requirements set forth in Title 7, Chapter 6, Part 16 of the Montana Code. Per subsection 7, an impact fee must meet the following requirements:

- a. “The amount of the impact fee must be reasonably related to and reasonably attributable to the development’s share of the cost of infrastructure improvements made necessary by the new development.
- b. The impact fees imposed may not exceed a proportionate share of the costs incurred or to be incurred by the governmental entity in accommodating the development. The following factors must be considered in determining a proportionate share of public facilities capital improvements costs:
 - (i) the need for public facilities capital improvements required to serve new development; and
 - (ii) consideration of payments for system improvements reasonable/anticipated to be made by or as a result of development in the form of user fees, taxes, and other available sources of funding the system improvements.
- c. Costs for correction of existing deficiencies in a public facility may not be included in the impact fee
- d. New development may not be held to a higher level of service than existing users unless there is a mechanism in place for the existing users to make improvements to the existing system to match the higher level of service.
- e. Impact fees may not include expenses for operations and maintenance of the facility.”

For each public facility for which an impact fee is imposed, the governmental agency must prepare and approve a service area report. As established in subsection 3, “the service area report is a written analysis that must contain documentation of sources and methodology used for purposes of subsection 2 and must document how each impact fee meets the requirements of subsection 7.”

Subsection 2 of the code established what information is required to be included within each service area report. To demonstrate the fulfillment of all requirements, subsection 2 is broken down below in Table 2 and linked to the specific documentation that meets each requirement and allows the City to legally update the impact fees.

Table 2: Compliance with Montana Enabling Impact Fee Legislation (Section 7-6-1602 MCA)

Section Reference	Documentation Item	Document(s)	Page or Section
(2)(a)	describe existing conditions of the facility	City Water & Wastewater Master Plans dated 2017	Water: Sections 6, 7, and 8 Wastewater: Sections 3 and 4
(2)(b)	establish level of service standards	Water & Wastewater Impact Fee Report	Water: Section 2.7 Wastewater: Section 3.7
(2)(c)	forecast future additional needs for service for a defined period of time	City Water & Wastewater Master Plans dated 2017	Water: Chapter 4 Wastewater: Section 8
(2)(d)	identify capital improvements necessary to meet future needs for service	City Water & Wastewater Master Plans dated 2017	Water: Sections 6, 7, and 8 Wastewater: Section 8
(2)(e)	identify those capital improvements needed for continued operation and maintenance of the facility	City Water & Wastewater Master Plans dated 2017	Water: Sections 6, 7, and 8 Wastewater: Section 8
(2)(f)	make a determination as to whether one service area or more than one service area is necessary to establish a correlation between impact fees and benefits	Water & Wastewater Impact Fee Report	Water: Section 2.1 Wastewater: Section 3.1
(2)(g)	make a determination as to whether one service area or more than one service area for transportation facilities is needed to establish a correlation between impact fees and benefits	Not Applicable for Water & Wastewater Impact Fees	Not Applicable for Water & Wastewater Impact Fees

Section Reference	Documentation Item	Document(s)	Page or Section
(2)(h)	establish the methodology and time period over which the governmental entity will assign the proportionate share of capital costs for expansion of the facility to provide service to new development within each service area	Water & Wastewater Impact Fee Report	Water: Section 2.8 Wastewater: Section 3.8
(2)(i)	establish the methodology that the governmental entity will use to exclude operations and maintenance costs and correction of existing deficiencies from the impact fee	Water & Wastewater Impact Fee Report	Water: Section 2.8 Wastewater: Section 3.8
(2)(j)	establishes the amount of the impact fee that will be imposed for each unit of increased service demand	Water & Wastewater Impact Fee Report	Water: Section 2.8 Wastewater: Section 3.8
(2)(k)	has a component of the budget of the governmental entity that: (i) schedules construction of public facility capital improvements to serve projected growth. (ii) project costs of the capital improvements. (iii) allocates collected impact fees for construction of the capital improvements. (iv) covers at least a 5-year period and is reviewed and updated at least every 2 years	Capital Improvement Plan (CIP)	Water & Wastewater-related improvements in the CIP

2.0 Water Impact Fee

1. Service Area

There is only one service area for the City. This is due to a single pressure zone throughout the system. All new customers to the system are included in this service area as shown in Figure 1.

Figure 1: The City of Belgrade Water Service Area



2. Existing Facility Conditions

Existing water assets are currently estimated at 62% capacity. The total redundant capacity is equal to 5,626,000 gallons per day. Used capacity was calculated based on a maximum day use including all uses less water loss. This figure includes adjusted airport use based on recent metering and with the addition of the new well currently planned for completion Fall 2018. All other facility conditions are outlined in the most recent facility plan.

3. Growth-Related Demands

Growth-related demands are forecast based on the 2017 Water Master Plan adjusted for growth realized since the adoption of the plan. Based on a 3.5 percent growth estimate, full utilization of current capacity is anticipated in approximately 14 years. However, 2018 growth indicates a potentially higher growth rate over the long term.

4. Capital Improvements

The City maintains a capital improvements plan (CIP) to identify the investments needed to both maintain the system treatment, transmission, and distribution system as well as increase the capacity to serve growth over a 10-year period. The analysis evaluated this CIP in conjunction with city staff to determine which projects contribute to expanding system capacity and to what level those projects contribute to system expansion. The overall impact fee is calculated to coincide with this same 10-year CIP planning period. The CIP used in this water analysis is provided in Appendix A.

5. Facility Valuations

Two system valuations were determined: existing system value and planning system growth value. The existing system value is based on the Replacement Cost New, less Depreciation (RCNLD) for all applicable assets less outstanding water system debt principal plus cash on hand, less any impact fee fund balance. The system growth value is equal to all projects identified in the CIP that expand system capacity.

The City maintains a listing of all current assets for the system. These assets are categorized by, among others, whether they are considered contributed capital or not. The listing of assets that were not classified as contributed capital are included in this analysis. Once the asset list was defined, the original cost was adjusted to 2017 dollars using the *Engineering News Record Construction Cost Index (CCI)* for Denver to determine the replacement cost new of the assets. Accumulated depreciation percentage was then netted off the replacement cost new to identify the final RCNLD. For the existing water system value, this calculation resulted in an applicable existing water system value of \$9,057,671.

The CIP identifies over \$15.2 million in capital improvements from 2018 – 2027. As part of the process to identify which projects expand system capacity, all small line distribution system projects are removed from the system growth value calculation. The remaining project costs are weighted based on the proportion of the project benefiting growth-related capacity as estimated at the time of improvement. This adjustment for growth results in approximately \$11.6 million in growth related capital projects identified.

6. Determine Unit Value for Capacity

Three unit capacity values were determined in this analysis: a unit capacity value for the existing system, a unit capacity value for the value of cash equity of the system, and a unit capacity for planned capital benefiting growth. To determine these values, calculations were made using the existing system capacity, total capacity, and growth capacity. The cash equity value is negative due to outstanding debt and the impact fund balance exceeding the City's cash on hand, resulting in a credit to new connections. Table 3 provides the calculations and the resulting total unit capacity value.

Table 3: Water Unit Capacity Values

Existing System	Cash Equity*	Growth
\$3,422,652	\$ (3,213,783)	\$11,633,043
Capacity: 2,125,946	Capacity: 5,626,000	Capacity: 3,494,000
\$1.61/gal	\$(0.57)/gal	\$3.33/gal

Total Unit Capacity Value = \$4.37

* Accounts for cash on hand, outstanding debt, and impact fee reserves

7. Level of Service Standards

One level of service standard has been identified for the water system. This level of service is determined by the maximum daily demand placed on the system by the contributing users, standardized into total equivalent dwelling units.

To determine the overall demand, the System Master Plan and recent historical usage was evaluated and the maximum day demand from FY 2017 was selected for inclusion to the analysis to represent capacity utilization. Maximum day demand represents the water system’s maximum daily usage excluding water loss. The usage by user class and resulting total usage is shown in Table 4.

Table 4: Maximum Day Usage

	Usage (gal)
Residential	1,974,974
Commercial	408,172
Large Commercial	439,358
Domestic Non-Revenue	19,792
Estimated Park Irrigation	283,047
Estimated Hydrant Flushing	28,600
Total*	3,153,943

*Not including water loss

Total EDUs contributing to the system are calculated by applying industry standard equivalent meter factors to the total number of meters by size. Table 5 shows these calculations and the total equivalent meters. Industry standard factors calibrate base equivalent meter ratios to 5/8” meters, while the City requires all new meters to be sized at 3/4”. Utilizing the equivalent meter adjustment factors we are able to account for this practice and maintain a proportional level of service standard.

Table 5: Total Equivalent Dwelling Units (EDUs)

Meter Size (in.)	# of Meters	Ratio	Equivalent Meters
5/8"	1373	1.0	1373
3/4"	1382	1.5	2073
1"	159	2.5	398
1 1/2"	67	5.0	335
2"	36	8.0	288
3"	10	15.0	150
4"	7	25.0	175
Unknown	13		
Total	3047		4792

Total utilized capacity was divided by the total EDUs to calculate the maximum gallon capacity use per EDU per day. This established a level of service of 730 gallons per day per EDU.

8. Proportionate Share of Costs

To ensure each new user is paying a proportionate share of costs, the same industry standard equivalent meter ratios are applied to the calculated base equivalent impact fee. By weighing charges based upon meter size, it ensures that meters with higher flow rate capabilities pay a higher proportionate share of growth-related costs. The resulting impact fee calculation and charges are outlined below and in Table 6.

$$\begin{array}{ccc}
 \begin{array}{l}
 \mathbf{730 \text{ gallons per day}} \\
 \text{Max Day Use} \\
 \text{Per Account}
 \end{array} & \times & \begin{array}{l}
 \mathbf{\$4.37 \text{ Gallons Capacity}} \\
 \text{System Value}
 \end{array} \\
 & & = \\
 & & \begin{array}{l}
 \mathbf{\$3,191} \\
 \text{Impact Fee} \\
 \text{Per 5/8" Meter}
 \end{array}
 \end{array}$$

Table 6: Water Impact Fee Charges

Residential	\$/unit
Single Family (3/4" Equivalent)	\$4,786
All Other (5/8" Equivalent)	\$3,191
Nonresidential	
3/4"	\$4,786
1"	\$7,977
1-1/2"	\$15,955
2"	\$25,527
3"	\$47,864
4"	\$79,773

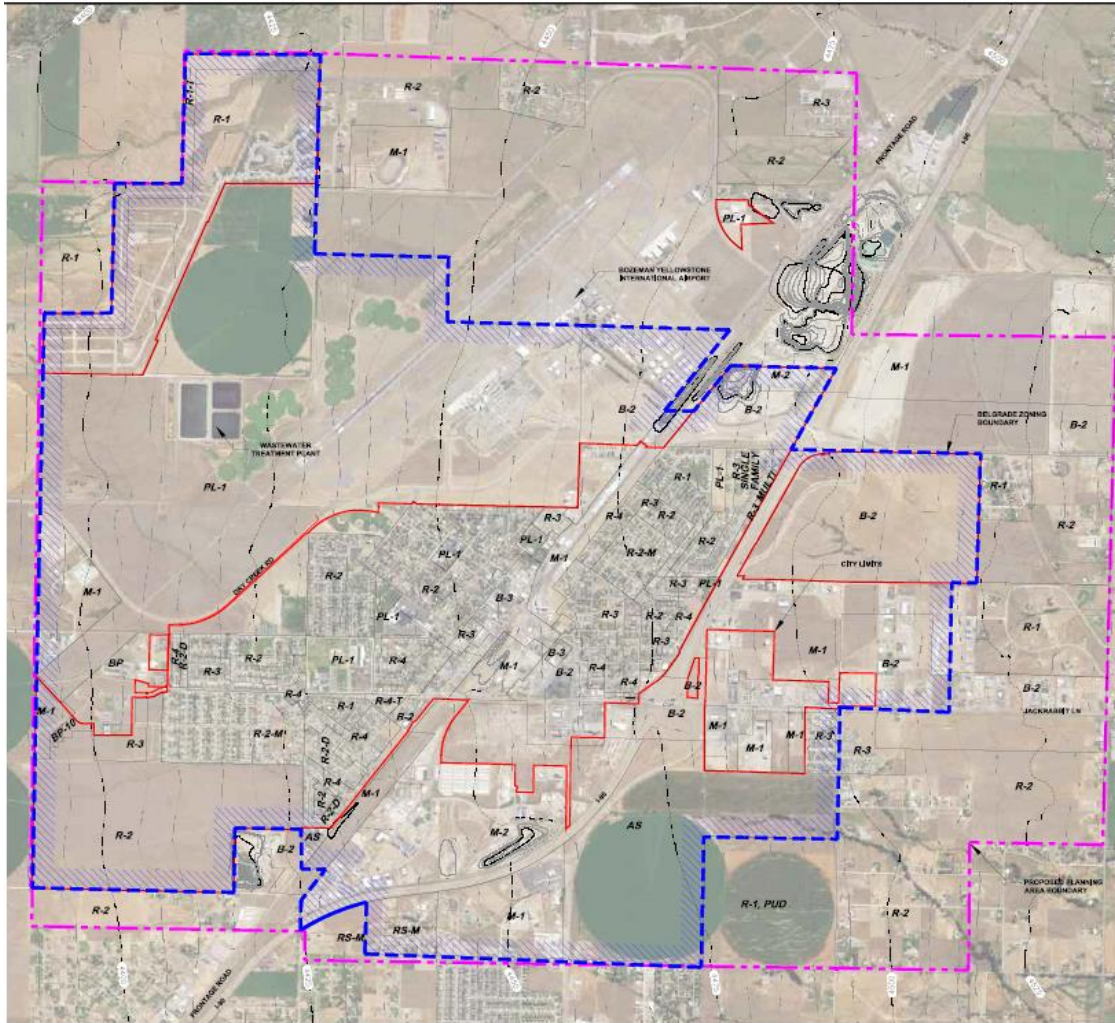
In instances where the meter size needed to service a new connection is greater than 4" or when the unique characteristics of a larger water user may require, the impact fee may be calculated by multiplying the anticipated demand of the user by the unit rate of \$4.37 per gallon. In instances where the characteristics of the user may result in a change in capital use patterns (such as a peaking factor in excess of 3.0), a special study may be required to calculate the charge.

3.0 Wastewater Impact Fee

1. Service Area

The wastewater system has only one service area for the City. All wastewater is pumped or gravity fed through a common collection system to a single treatment facility. All new customers to the system are included in this service area as shown in Figure 2.

Figure 2: The City of Belgrade Wastewater Service Area



2. Existing Facility Conditions

Existing wastewater assets are currently estimated at 79% capacity. The total capacity is equal to 903,000 gallons per day. Used capacity was calculated based on a current average day flow and equals 744,000 gallons per day. However, building permits have been issued for enough units to utilize all existing system capacity (without necessarily making connection to the system or discharging). All other facility conditions are also outlined in the 2017 Wastewater Master Plan.

3. Growth-Related Demands

Growth-related demands are forecast based on the 2017 Wastewater Master Plan adjusted for growth realized since the adoption of the plan. As a result, the current growth estimates anticipate full utilization of current capacity is imminent.

4. Capital Improvements

The City maintains a capital improvements plan (CIP) to identify the investments needed to both expand the treatment and collection system as well as increase the capacity to serve growth over a 10-year period. The analysis, in conjunction with city staff, evaluated this CIP to determine which projects contribute to expanding system capacity and to what level those projects contribute to system expansion. The overall impact fee charge is calculated to coincide with this same 10-year CIP planning period. The CIP utilized is provided in Appendix B

5. Facility Valuations

This analysis used two system valuations: the existing wastewater system value and the system growth value. Like the water system valuations, the existing wastewater system value is based on the Replacement Cost New, less Depreciation (RCNLD) for all applicable assets less outstanding wastewater system debt principal plus cash on hand, less any impact fees fund balance. The system growth value is based on the proportion of projects identified in the CIP that expand system capacity.

When calculating the existing system value, the City maintains a listing of all current assets for the system. These assets are categorized by, among others, whether they are considered contributed capital or not. The listing of assets that were not classified as contributed capital are included in this analysis. Once the asset list was defined, the original cost was adjusted to 2017 dollars using the *Engineering News Record Construction Cost Index (CCI)* for Denver to determine the replacement cost new of the assets. Accumulated depreciation percentage was then netted off the replacement cost new to identify the final RCNLD. For the existing wastewater system value, this calculation resulted in an applicable existing wastewater system value of \$7,200,000.

From 2018 to 2027, over \$23.1 million in capital improvements were identified in the CIP. As part of the process to identify which projects expand system capacity, all small line collection system projects are removed from the system growth value calculation. The remaining project costs are weighted based on the proportion of the project benefiting growth-related capacity as estimated at the time of improvement. This adjustment for growth results in approximately \$22.8 million in growth related capital projects identified.

6. Determine Unit Value for Capacity

Three unit capacity values are determined in this analysis: a unit capacity value for existing system, a unit capacity value for the cash equity of the system, and a unit capacity value for planned capital benefiting growth. Of the three capacity values, cash equity is negative due to outstanding debt and impact fund balance exceeding the City's cash on hand, resulting in a credit to new connections. The existing system has a capacity value of \$0/gal due to the imminent

utilization of all current capacity and the absence of capacity allocable to growth.¹ Table 7 provides the calculated unit capacity values and the resulting total unit capacity value.

Table 7: Wastewater Unit Capacity Values

Existing System	Cash Equity*	Growth
\$7,211,668	\$ (1,841,317)	\$22,830,079
Capacity: 0	Capacity: 903,000	Capacity: 1,670,000
\$0/gal	\$(2.04)/gal	\$13.67/gal

Total Unit Capacity Value = \$11.63

* Accounts for cash on hand, outstanding debt, and impact fee reserves

7. Level of Service Standards

One level of service standard has been identified for the wastewater system. The overall level of service is determined by the average daily influent by the contributing users.

To determine the overall demand, historical average day influent from 2014 to 2016, equal to 744,000 gallons, was calculated to represent capacity utilization. Average day influent represents the typical daily usage for the wastewater system.

Total EDUs contributing to the system are calculated by applying industry standard equivalent meter factors to the total number of meters by size. Wastewater EDUs are set equal to the calculated water EDUs as wastewater flows are not metered on an individual basis. Table 5 on Page 10 shows the conversion from meters to equivalent meters and the calculation of 4792 as the Total EDUs.

Total capacity (744,000 gallons) was divided by the total EDUs to calculate the maximum gallon capacity use per EDU per day. This established a level of service of 155 gallons per day per EDU.

8. Proportionate Share of Costs

Proportionate share of costs are calculated using industry standard equivalent meter ratios to fairly allocate growth-related costs. Industry standard equivalent meter ratios are applied to the base equivalent impact fee to calculate the resulting final impact fee charges as outlined in Table 8. By applying these equivalency ratios, all connections are allocated proportionate shares of growth-related costs based up on the established potential flow added to the system.

$$\begin{array}{ccc}
 \text{155 gallons per day} & & \text{\$11.63 Gallons Capacity} \\
 \text{Average Day Use} & \times & \text{System Value} \\
 \text{Per Account} & & \\
 & & \text{=} \\
 & & \text{\$1,806} \\
 & & \text{Impact Fee} \\
 & & \text{Per 5/8" Meter}
 \end{array}$$

¹This approach to representing the capacity of the existing wastewater system is intended to recognize that due to the existing infrastructure and usage it is likely that prior to the next Impact Fee update future connections may fully utilize the existing capacity at the wastewater treatment facility. As a result, the Impact Fee is calculated to ensure that if this were to occur, those paying it would not be charged for these existing assets.

Table 8: Wastewater Impact Fee Charges

Residential	\$/unit
Single Family (3/4" Equivalent)	\$2,709
All Other (5/8" Equivalent)	\$1,806
Nonresidential	Fee
3/4"	\$2,709
1"	\$4,515
1-1/2"	\$9,030
2"	\$14,449
3"	\$27,091
4"	\$45,152

In instances where the meter size needed to service a new connection is greater than 4" or when the unique characteristics of a larger water user may require, the impact fee should be calculated by multiplying the anticipated average daily demand of the user by the unit rate of \$11.63 per gallon. In instances where the characteristics of the user (such as biological oxygen demand in excess of 400 mg/L or total suspended solids in excess of 389 mg/L) may result in a change in capital use patterns, a special study may be required to calculate the charge.

4.0 Summary

As the City looks to build a system with greater capacity to serve future growth, impact fees have been calculated to fairly allocate the proportionate share of costs attributable to potential new connections. The impact fees calculated in this analysis are based on the value of the in-place assets and the reasonably expected costs of future capital to expand and improve the City's water and wastewater system.

Table 9 presents the impact fee schedule in its entirety for the water system and the respective wastewater service system.

Table 9: Summary Impact Fee Charges

	Water	Wastewater	Total
Residential	\$/unit	\$/unit	\$/unit
Single Family (3/4" Equivalent)	\$4,786	\$2,709	\$7,495
All Other (5/8" Equivalent)	\$3,191	\$1,806	\$4,997
Nonresidential			
3/4"	\$4,786	\$2,709	\$7,495
1"	\$7,977	\$4,515	\$12,492
1-1/2"	\$15,955	\$9,030	\$24,985
2"	\$25,527	\$14,449	\$39,976
3"	\$47,864	\$27,091	\$74,955
4"	\$79,773	\$45,152	\$124,925

Appendix A: Water Capital Improvement Plan

Include/Ex Project	Base Year Cost	Base Year Inflation Rate	2017 Inflated Cost	Percent Growth	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total	Growth Related
1 New Well #8 - City Park Well	\$1,000,000	2019	\$1,060,900	100%	\$0	\$1,060,900	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,060,900	\$1,060,900
1 West Central Avenue Main Upgrade	\$982,000	2019	\$1,041,804	25%	\$0	\$1,041,804	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,041,804	\$260,451
1 Replace Remaining 4in with 8in	\$150,000	2020	\$163,909	0%	\$0	\$0	\$163,909	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$163,909	\$70,666
1 NE Loop Tie	\$1,227,000	2022	\$1,422,429	80%	\$0	\$0	\$0	\$0	\$1,422,429	\$0	\$0	\$0	\$0	\$0	\$1,422,429	\$1,137,943
1 New Well Main Upgrade (Westwood Circle)	\$1,426,000	2023	\$1,702,719	100%	\$0	\$0	\$0	\$0	\$0	\$1,702,719	\$0	\$0	\$0	\$0	\$1,702,719	\$1,702,719
1 Broadway Well Improvements	\$1,000,000	2024	\$1,229,874	50%	\$0	\$0	\$0	\$0	\$0	\$0	\$1,229,874	\$0	\$0	\$0	\$1,229,874	\$614,937
1 S. Central Commercial District Main Upgrades	\$1,165,000	2025	\$1,475,787	75%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,475,787	\$0	\$0	\$1,475,787	\$1,106,840
1 West Crossing Loop	\$5,103,000	2026	\$6,658,258	80%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$6,658,258	\$0	\$6,658,258	\$5,326,606
0 Prescott Subdivision Development	\$0	2028	\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1 Spooner Road Main Completion	\$285,000	2021	\$320,770	100%	\$0	\$0	\$320,770	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$320,770	\$320,770
1 East Crossing Loop	\$3,304,000	2029	\$4,710,714	100%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
1 Well Water Level Sensors	\$38,000	2019	\$40,314	0%	\$0	\$40,314	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$40,314	\$17,949
0 Source Water Protection Planning	\$20,000	2020	\$21,855	0%	\$0	\$0	\$21,855	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,855	\$0
0 Well and Pump Performance Testing	\$65,000	2018	\$66,950	0%	\$66,950	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$66,950	\$0
1 Modification to Pump #5	\$25,000	2019	\$26,523	50%	\$0	\$26,523	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$26,523	\$13,261
0 Irrigation Study	\$12,000	2020	\$13,113		\$0	\$0	\$13,113	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$13,113	\$0
1 Upper Pressure Loop	\$18,306,000	2028	\$25,339,785	100%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
13 Total	\$34,108,000		\$45,295,702												\$15,245,203	\$11,633,043

Appendix B: Wastewater Capital Improvement Plan

Include/Exclude (Distribution)	Base Year Inflation Rate	Year	2018 Inflated Cost	Percent Growth	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total	Growth	
																	3%
1 Jackrabbit Lift Station Improvements	\$65,000	2019	\$66,950	100%	\$0	\$66,950	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$66,950	\$66,950
1 Regional Lift Station Expansion Cost-Share	\$300,000	2018	\$300,000	100%	\$300,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$300,000	\$300,000
Farmers Lift Station																	
1 Improvements	\$510,000	2022	\$574,009	50%	\$0	\$0	\$0	\$0	\$574,009	\$0	\$0	\$0	\$0	\$0	\$0	\$574,009	\$287,005
SID #78 Lift Station																	
1 Improvements	\$65,000	2021	\$71,027	100%	\$0	\$0	\$0	\$71,027	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$71,027	\$71,027
Meadowlark Lift Station																	
1 Improvements	\$50,000	2025	\$61,494	100%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$61,494	\$0	\$0	\$0	\$61,494	\$61,494
Ryen Glenn Lift Station																	
1 Improvements	\$65,000	2026	\$82,340	75%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$82,340	\$0	\$0	\$82,340	\$61,755
1 Outfall Line	\$345,600	2019	\$355,968	100%	\$0	\$355,968	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$355,968	\$355,968
1 1 P BED C	\$396,000	2019	\$407,880	100%	\$0	\$407,880	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$407,880	\$407,880
1 WWTF Expansion	\$20,000,000	2020	\$21,218,000	100%	\$0	\$0	\$21,218,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,218,000	\$21,218,000
	\$21,796,600		\$23,070,718												\$23,137,668	\$22,830,079	