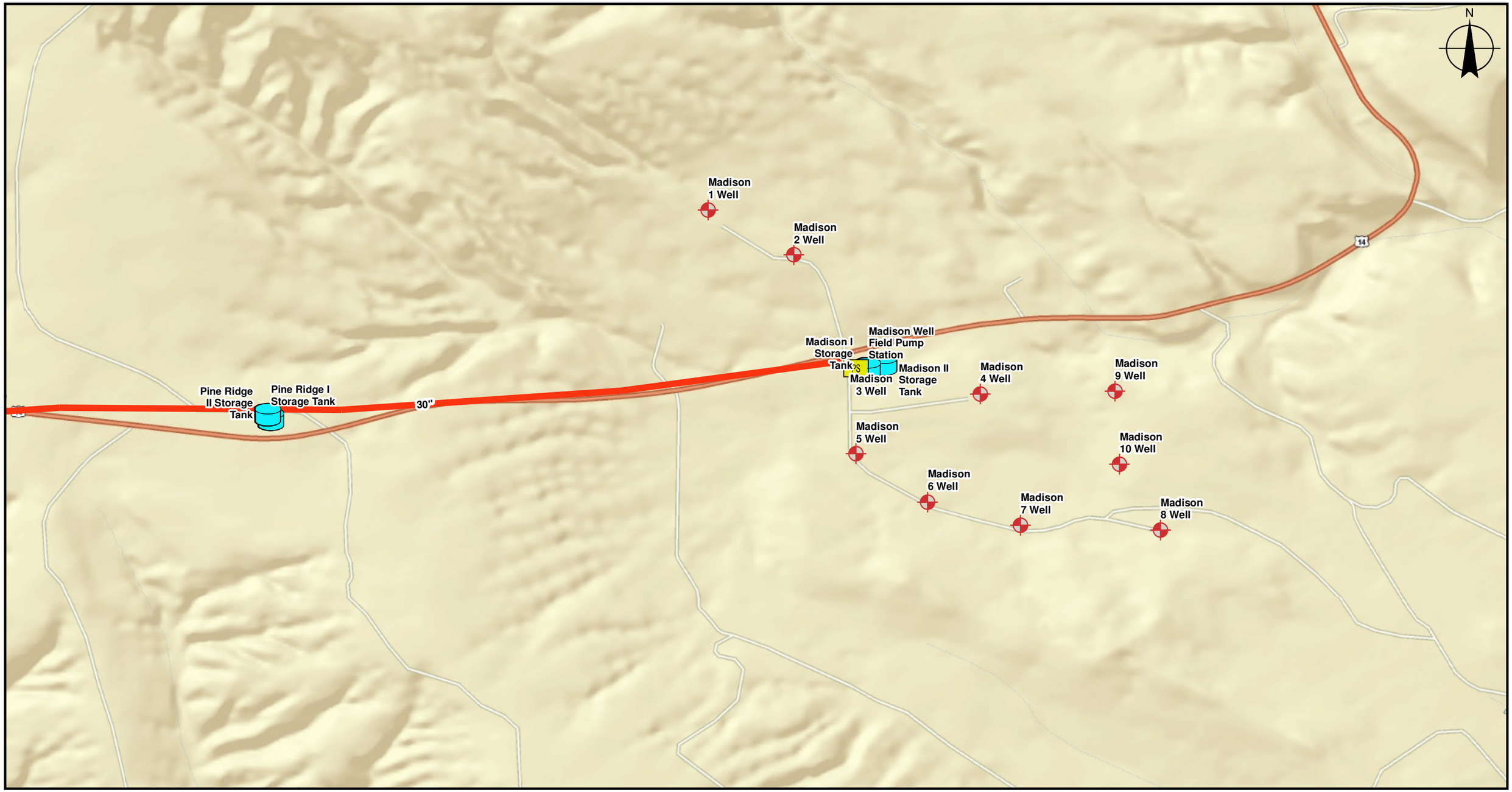

1 inch = 1,000 feet

Legend

- Wells
- Pump Stations
- Storage Tanks
- Existing Madison Waterline
- Gillette City Limits

Exhibit A-1
Gillette Regional Water Supply System
Madison Well Field

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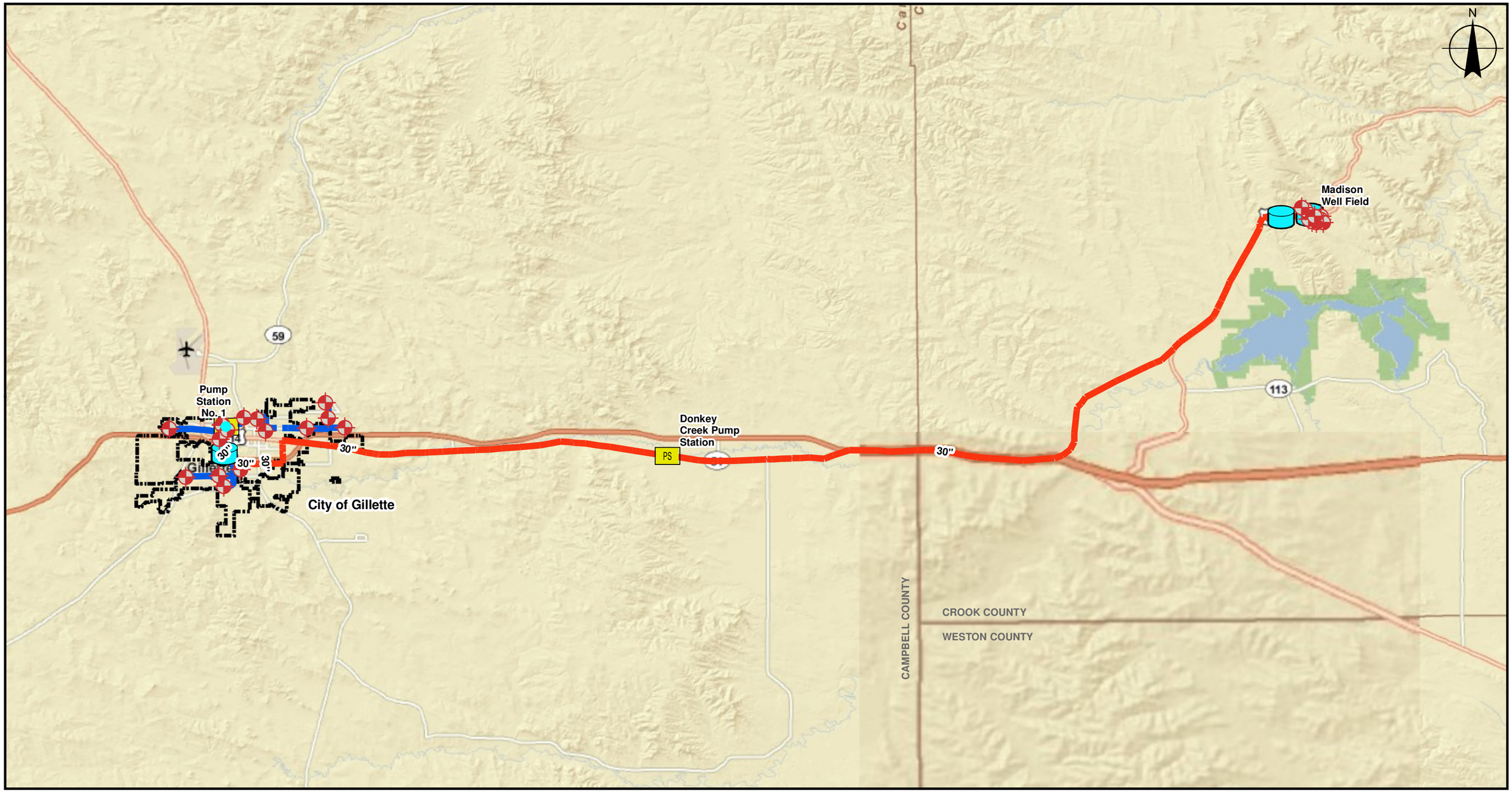
December 16, 2010

Gillette Regional Water System Service Area - JPA



1 inch = 4 miles

Legend

- Wells
- Pump Stations
- Storage Tanks
- Existing Madison Waterline
- Supply Waterlines
- Gillette City Limits

Exhibit A-2
Gillette Regional Water Supply System Transmission Facilities

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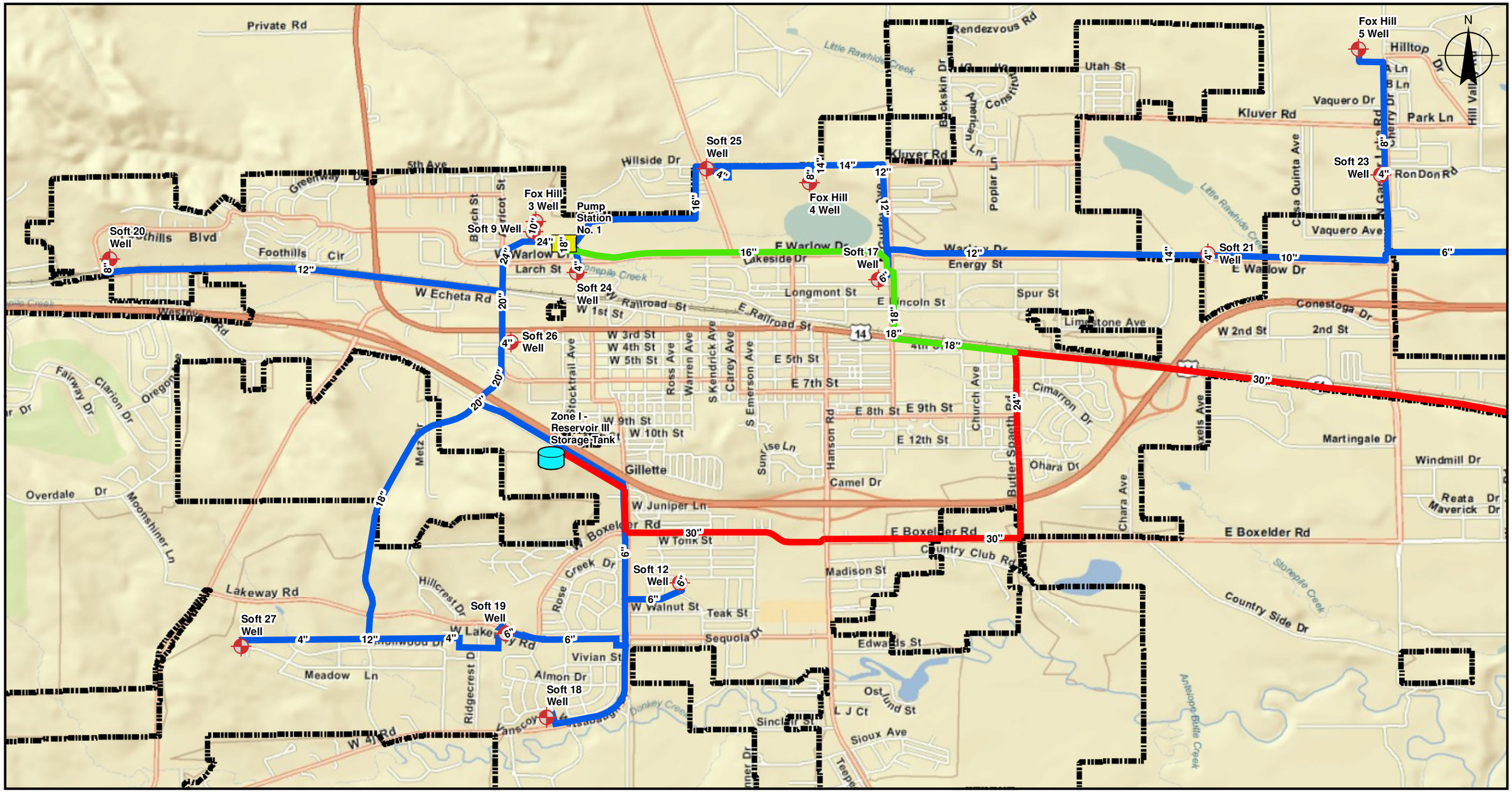
Gillette Regional Water System Service Area - JPA



1 inch = 0.5 miles

Legend

- Wells
- Pump Stations
- Storage Tanks
- Supply Waterlines
- Blending Waterlines
- Existing Madison Waterline
- Gillette City Limits

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Exhibit A-3
Gillette Regional Water Supply System
Inside City Limits

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Gillette Regional Water System Service Area - JPA

EXHIBIT B

Gillette Regional Water Supply Project
Asset Database

Source of Supply, Wellfield and Pumping Summary								
Formation	**Well Name**	**Year Installed**	**Casing Depth (ft)**	**Capacity (gpm)**	**Pump Setting (ft bgl)**	**Pump Manufacturer**	**Current Pump Size (hp)**	**Motor Manufacturer**
Fort Union	S-9	2010	1,660	250	1,477	Centrilift	150	Centilift
	S-12	2008	2,162	400	1,665	ESP	300	ESP
	S-17	2010	1,632	250	1,499	Centrilift	150	Centilift
	S-18	2010	1,522	150	1,486	Centrilift	115	Centilift
	S-19	2010	1,710	325	1,681	Centrilift	150	Centilift
	S-20	2008	1,736	250	1,609	ESP	225	ESP
	S-21	1998	2,250	140	1,056	Goulds	60	Hitachi
	S-22	1997	2,315	100	1,140	Crown	50	Franklin
	S-23	1998	2,252	100	1,056	Crown	50	Franklin
	S-24	1997	2,430	140	1,099	Crown	75	Franklin
	S-25	1997	2,469	125	1,149	Berkeley	60	Franklin
	S-26	1998	2,515	100	1,225	Crown	60	Hitachi
	S-27	2010	1,705	150	1,670	Centrilift	125	Centilift
Total				2,480				
Fox Hills	FH-3	1975	4,437	700	1,569	Centrilift	390	Centilift
	FH-4	1982	4,350	550	1,538	Centrilift	250	Centilift
	FH-5	1998	3,997	550	1,411	Centrilift	250	Centilift
Total				1,800				
Madison	M-1	1980	2,390	550	932	Crown	200	Franklin
	M-2	1980	2,390	800	932	Crown	200	Franklin
	M-3	1980	2,357	1,017	622	Crown	200	Franklin
	M-4	1980	2,390	1,000	625	Crown	200	Franklin
	M-5	1980	2,365	600	1,097	Crown	200	Franklin
	M-6	1980	2,421	600	921	Crown	200	Franklin
	M-7	1981	2,500	600	1,071	Crown	200	Franklin
	M-8	1981	2,500	580	1,084	Crown	200	Franklin
	M-9	1996	2,397	1,495	510	Johnson	250	US
	M-10	1996	2,370	1,495	510	Johnson	250	I.E.M.
Total				8,737				
	Total Source of Supply Capacity			**13,017**				

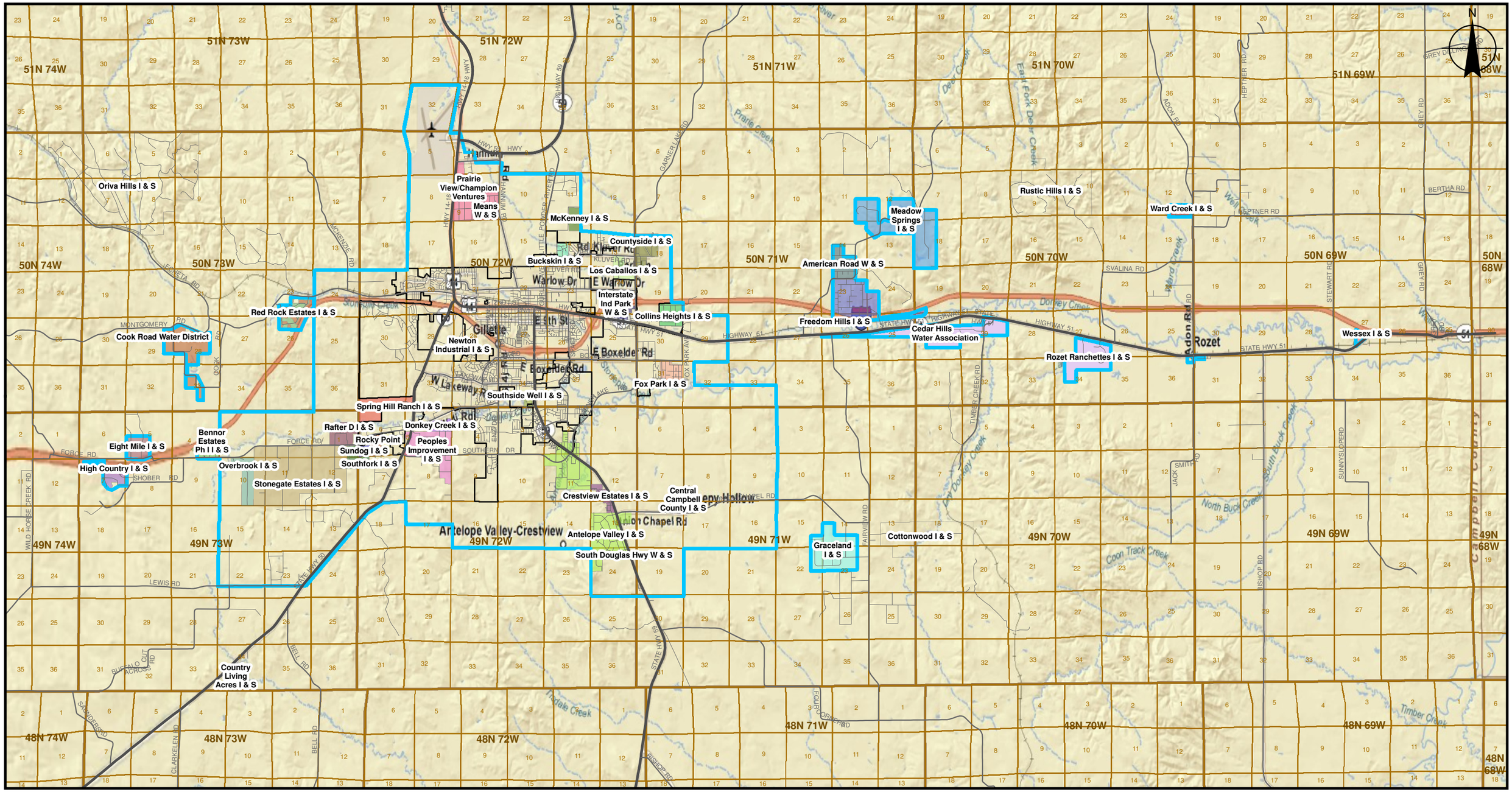
Supply System Storage Reservoirs					
Name	**Year Constructed**	**Capacity (MG)**	**Diameter (ft)**	**HWL (ft)**	**Base Elevation (ft)**
Madison Pump Station #1	1980	1.0	70	4274.00	4235.50
Madison Pump Station #2	2005	0.2	30	4274.00	4235.50
Pine Ridge #1	1980	0.8	50	4542.00	4483.50
Pine Ridge #2	2005	0.2	24	4542.00	4483.50
Zone 1 Reservoir 3	1984	7.0	175	4761.00	4722.00
	Total Storage Capacity of	**9.2**			

Supply System Booster Pump Stations						
Pump Station Name	Booster Pump No.	Year Pump Installed	Pump Size (hp)	Pump Capacity (gpm)	Pump Manufacturer	Motor Manufacturer
Madison[1]	1	1980	150	1,750	Peabody-Floway	General Electric
	2	1980	150	1,750	Peabody-Floway	General Electric
	3	1980	150	1,750	Peabody-Floway	General Electric
	4	1986	150	1,750	Peabody-Floway	General Electric
	5	1998	250	2,700	Johnson Pump	I.E.M.
Madison Total				9,700		
Donkey Creek	1	1987	300	1,750	Peabody-Floway	General Electric
	2	1980	300	1,750	Peabody-Floway	General Electric
	3	1980	300	1,750	Peabody-Floway	General Electric
	4	1998	300	1,750	Johnson Pump	I.E.M.
	5	1998	300	2,700	Johnson Pump	I.E.M.
Donkey Creek Total				9,150		
Pump Station No. 1[1]	1	1983	50	500	Worthington	US Motors
	2	1983	100	1,060	Worthington	General Electric
	3	1994	100	1,060	Worthington	Newman
	4	1992	100	1,060	Worthington	US Motors
Pump Station No. 1 Total				3,680		
		Total Supply System Capacity		**22,530**		

[1] Madison and Pump Station No. 1 each have gas chlorine injection disinfection equipment located at the booster pump stations.

Supply System Piping				
Transmission				
Segment	Year Installed	Diameter	LF	Material
Madison Pipeline	1979	30"	220,381	Steel
	2008	24"	2,753	PVC

In-City Collection				
Segment	Year(s) Installed	Diameter	LF	Material
Well Supply Pipelines	2008	24"	2,590	PVC
	2008	20"	973	PVC
	2010	20"	2,401	PVC
	1969	18"	45	PVC
	2010	18"	7,619	PVC
	1998	16"	6,967	PVC
	1998	14"	1,509	PVC
	1990	12"	225	PVC
	1998	12"	6,036	PVC
	2008	12"	307	PVC
	2010	12"	51	PVC
	2008	12"	8,190	HDPE
	1998	10"	6,829	PVC
	2008	10"	266	PVC
	1998	8"	6,710	PVC
	2008	8"	352	HDPE
	1984	6"	13,511	PVC
	1995	6"	1,998	PVC
	1998	6"	3,653	PVC
	2010	6"	610	PVC
	1984	4"	41	PVC
	1989	4"	21	PVC
	1992	4"	6,224	PVC
	1998	4"	1,665	PVC
	2010	4"	205	PVC
Blending Pipeline	1970	18"	3,538	DIP
	1993	16"	8,373	PVC



1 inch = 2 miles

Legend

- Designated Service Area (DSA)
- Gillette City Limits
- Section
- Township

Exhibit C
Gillette Regional Water Supply System Designated Service Area

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December 16, 2010

Gillette Regional Water System Service Area - JPA

EXHIBIT D

Gillette Regional Water Supply Project
Financial Policies and Guidelines For Utility Rate Setting

Introduction

The development of financial policies to aid in the utility rate setting process has a number of important advantages from a policy and decision-making perspective. More importantly, the development and establishment of written financial policies for this specific area follows best management practices and guidelines as established by the Government Finance Officers Association (GFOA).

GFOA principles and framework have been adapted to establish written financial policies to guide the financial planning and rate setting process for the City's water utility, particularly as it relates to establishing a regional water utility and regional rates. This discussion paper will review the suggested framework for establishing written financial policies and guidelines for the water utility's financial planning and rate setting processes of the City.

Overview of Best Practices and Framework for Policies

The GFOA has established an approach for best practices in establishing policies for budgeting purposes.[1] The basis framework is established around four basic principles. These principles are as follows:

- **Principle I – Establish Broad Goals To Guide Government Decision Making** - A government should have broad goals that provide overall direction for the government and serve as a basis for decision making.
- **Principle II – Develop Approaches to Achieve Goals** - A government should have specific policies, plans, programs, and management strategies to define how it will achieve its long-term goals.
- **Principle III – Develop a Budget with Approaches to Achieve Goals** - A financial plan and budget that moves toward achievement of goals, within the constraints of available resources, should be prepared and adopted.
- **Principle IV – Evaluate Performance and Make Adjustments** – Program and financial performance should be continually evaluated, and adjustments made, to encourage progress toward achieving goals.

Principles are intended to be broad and reflect the overall budget/planning process. More importantly, these principles are intended to consider both the political and managerial

1 Recommended Budget Practices, A Framework for Improved State and Local Government Budgeting, Government Finance Officers Association, 1998

perspectives within the process. These political and managerial perspectives obviously have technical and financial ramifications. By clearly defining and understanding these basic principles, the entity (e.g. City, utility, department, etc.) is communicating a clearer direction.

Within each principle, there is a set of elements. The elements are intended to represent achievable results. There are a total of 12 elements under the four goals. These elements are as follows:

- **Principle I – Establish Broad Goals to Guide Decision Making**
  - Element 1 – Assess Community Needs, Priorities, Challenges and Opportunities
  - Element 2 – Identify Opportunities and Challenges for Government Services, Capital Assets and Management
  - Element 3 – Develop and Disseminate Broad Goals
- **Principle II – Develop Approaches to Achieve Goals**
  - Element 4 – Adopt Financial Policies
  - Element 5 – Develop Programmatic, Operating and Capital Policies and Plans
  - Element 6 – Develop Programs with Services that are Consistent with Policies and Plans
  - Element 7 – Develop Management Strategies
- **Principle III – Develop Budget With Approaches to Achieve Goals**
  - Element 8 – Develop a Process for Preparing and Adopting a Budget
  - Element 9 – Develop and Evaluate Financial Options
  - Element 10 – Make Choices Necessary to Adopt a Budget
- **Principle IV – Evaluate Performance and Make Adjustments**
  - Element 11 – Monitor, Measure, and Evaluate Performance
  - Element 12 – Make Adjustments As Needed

For purposes of establishing financial policies for the City's water utility, the focus will be on Elements 4 and 5. Within Elements 4 and 5, GFOA has segregated various policies into "practices." These various practices, by Element, provide the final detail of an organized structure. The various practices for Elements 4 and 5 are shown below.

- **Principle II – Develop Approaches to Achieve Goals**
  - **Element 4 – Adopt Financial Policies**
    - ✓ Practice 4.1 Develop Policy on Stabilization Funds
    - ✓ Practice 4.2 Develop Policy on Fees and Charges
    - ✓ Practice 4.3 Develop Policy on Debt Issuance and Management
    - ✓ Practice 4.3a Develop Policy on Debt Level and Capacity
    - ✓ Practice 4.4 Develop Policy Use on One-Time Revenue
    - ✓ Practice 4.4a Evaluate the Use of Unpredictable Resources
    - ✓ Practice 4.5 Develop Policy on Balancing the Operating Budget
    - ✓ Practice 4.6 Develop Policy on Revenue Diversification
    - ✓ Practice 4.7 Develop Policy on Contingency Planning
  - **Element 5 – Develop Programmatic, Operating and Capital Policies and Plans**
    - ✓ Practice 5.1 Prepare Policies and Plans to Guide the Design of Programs and Services

- ✓ Practice 5.2 Prepare Policies and Plans for Capital Asset Acquisition, Maintenance, Replacement, and Retirement

The above elements and practices are generally focused on general purpose government. Given that these policies are specifically focusing on the City's water utility, the above policy framework has been adapted and modified for reasons of clarity and ease of use as they relate to organizing the City's financial and rate setting policies for the water utility and the regionalization study. Even with these modifications, the financial and rate setting policies generally follow the above framework and principles of GFOA.

Development of the City's Financial/Rate Setting Policies

Provided below is the development of the specific proposed financial and rate setting policies for the City of Gillette's water utility. The policies are intended to provide guidance in the financial planning and rate setting process, and in the day-to-day financial management of the water utility.

The adoption and adherence to these financial policies will provide a strong foundation for the long-term financial sustainability of the water utility and will provide the regional customers and the outside financial community with a better understanding of the City's commitment to managing the water utility in a financially prudent manner.

These policies have been reorganized and renumbered around the suggested GFOA format. As a point of reference, the policies developed below are essentially Element 4 and 5. If desired, the City can certainly reformat or organize these policies to incorporate into other current or future City policies or guidelines.

1. WATER UTILITY FINANCIAL/RATE SETTING POLICIES

1.1 Purpose of the Water Financial/Rate Setting Policies
1.2 Establishing Water Rates and Fees
1.3 Reserve Funds
1.4 Debt Issuance and Debt Management
1.5 Debt Level and Capacity
1.6 Disposition of "One-Time" Revenues
1.7 Balanced Operating Budget
1.8 Revenue Diversification

1.1 Purpose of the Water Financial/Rate Setting Policies

The following financial and rate setting policies have been developed to provide guidance and consistency to the City's management team and the City Council in decision-making as it relates to the water utility financial planning and rate setting process. These policies and guidelines will assist the City in achieving overall financial planning and rate setting processes from year-to-year for the City's water utility. These policies should not be considered on a stand-alone basis, but rather should be used with other City documents and procedures in the decision-making process. The proposed policies should be reviewed at the beginning of each fiscal period to determine if they are still relevant and appropriate. They should be revised, as appropriate, to reflect current City Council policies and guidance.

The overall purpose or goals of the City's financial and rate setting policies are to:

- Establish "generally accepted" or "Industry Best Practices" as they relate to financial planning and rate setting,
- Operate the water utility in a financially prudent manner by establishing and/or maintaining:
- Provide sufficient operating capital and reserves with targeted minimum funding levels
- Establish minimum financial planning targets (e.g. debt service coverage)
- Provide adequate funding to maintain the existing and future infrastructure

By establishing these financial and rate setting policies, the City should achieve an acceptable level of rate stability and avoid the need for periodic major increases.

1.2 Establishing Water Rates and Fees

The City's water utility rates and system development charges (SDCs) shall be reviewed annually, to assure sufficient operating and capital infrastructure funding, maintain sufficient reserves, and maintain smooth rates for the purpose of avoiding large fluctuations in rates. This does not imply that rates must be adjusted each year, simply that the rates are reviewed in the context of these policies to assure that they are adequately funding the water utility.

RATE SETTING POLICIES:

The City shall establish cost-based rates and fees using "generally accepted" rate setting and costing methodologies[2]. The water utility will be viewed on a "stand-alone" basis to help assure self sufficiency and sustainability. The analyses associated with "generally accepted" rate-setting techniques include the following analyses:

A. **Revenue Requirement Analysis** – Establishes the overall level of financial and rate needs of the utility. In developing the revenue requirement, it is prudent practice to consider the following:

   1. Revenue requirements will be established on a "cash basis" approach that will include operation & maintenance expenses, taxes/transfers, debt service (P&I) and capital improvements, along with any other funding requirements to maintain system integrity and meet the utility's overall financial planning objectives.
   2. Revenues and costs will be annually projected for a projected five (5) year period (the proposed budget year plus four (4) additional projected years).
   3. Projections of O&M costs should include any estimated incremental O&M costs associated with changed or increased service levels or future capital improvements.
   4. The City will continue to develop a capital improvement plan and update it annually.
   5. On an annual basis, the City should adequately fund, through its rates, an amount to adequately maintain the existing water utility infrastructure of the City. To achieve this policy, the City should, at a minimum, be funding an amount equal to or greater than the annual depreciation expense of the water utility. As new large capital facilities are added to the City, consideration may be given to phasing-in the rate impact of the policy.
   6. The system's capital improvement program will consider legally mandated capital, growth related capital, and replacement capital.
   7. Level of rate adjustment(s) will reflect all of the above costs, direct, indirect and costs of administration, such that rates will be cost-based.

B. **Cost of Service Analysis** – Determines the equitable allocation of costs (revenue requirements) between the various customer groups. Examples of customer classes of service include, but are not limited to, residential, commercial, regional, etc.).

   1. When possible, a cost of service study will be utilized to equitably allocate the utility costs to the customer classifications of service.
   2. The cost allocation methodology will utilize techniques that are "generally accepted" by the industry (e.g., American Water Works Association, etc.).

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2 See Exhibit D for details of the specific Regional rate setting methodology/framework

3. The water cost of service will consider the specific circumstances and unique characteristics of the City and its regional customers in the cost allocation methodology.
4. The summary results of the cost of service should be presented to and reviewed by the Regional Water Panel the City Council during the rate setting process.

C. **Rate Design Analysis** – Design rates to collect the appropriate level of revenue and reflects the water rate design goals, objectives and policies of the City.

1. Water rate designs will be reflective of system needs, and also reflect the greater public purpose and policy goals of the Regional Water Panel and City Council.
2. Rate structures shall be developed to promote understanding by the utility's customers (e.g., bills that are easy to understand).
3. Rates will be set at a level that recovers necessary costs, by customer classification, yet is flexible enough to accomplish the City's objectives.
4. Rates should be designed to be reasonable and sound, and detailed to a level to reflect the service provided (e.g., retail vs. wholesale or regional services).
5. Rates shall balance the overall goals and objectives of the rate design process with any administrative or utility billing issues. Providing rates that are easy to understand and administer is beneficial to both the customer and the utility.

SYSTEM DEVELOPMENT CHARGE POLICIES:

System Development Charges (SDCs) are intended to reflect the cost of growth and capacity expansion to serve new customers and additional capacity requirements. System Development Charges are a common method of assessing the cost of growth and expansion to new customers or those existing customers requesting expansion of their capacity requirements. In establishing the Water System Development Charges, the following shall be considered:

A. **Meeting Legal Requirements –** System Development Charges shall be established and administered to conform and meet any current applicable or future State or local legal requirements.

B. **Major Components of the SDC –** In establishing the system development charge, the per unit cost of the SDC shall consider the value of the functional components of water supply (e.g. source of supply, treatment, transmission, distribution, etc.). To determine fair and cost-based SDC's between regional and retail customers, the cost/value of each major component shall be separately analyzed and determined within the SDC analysis.

C. **Methodologies -** SDCs shall be established using "generally accepted" methodologies and shall include a debt service credit to fairly account for the method of financing used for growth and expansion projects.

D. **Determination of Cost-Basis -** As appropriate, SDCs shall be calculated to determine the cost-based levels for customers seeking to connect to the City's water system. For purposes of determining and administering SDCs, the City's water system will be considered a single unified system. A single unified system implies that the per unit capacity cost of an SDC is the same for all new connections, regardless of the customer or geographic location of the customer (i.e. a "unit of supply capacity" is a "unit of supply capacity" regardless of whether it is a regional or retail customer purchasing that capacity).

E. **Establishing Final SDCs -** The Regional Water Panel shall accept the SDC proposal and the City Council shall adopt the final SDCs taking into consideration the cost-based levels of the fees and the City Council's policy or philosophy as it relates to the sharing of growth-related costs between existing rate payers and new customers connecting to the system. At no time shall the City Council establish or adopt SDCs greater than the calculated cost-based SDCs.

ANNUAL REVIEWS/UPDATES TO RATES AND FEES:

To help determine that utility rates and fees are sufficient, the City should annually review their rates and fees. This does not necessarily imply annual rate adjustments, but the City should closely monitor the financial/rate performance of the water utility to help maintain adequate rates and fees.

A. **Annual Reviews -** Utility rates and SDCs shall be reviewed annually, to help determine the adequacy of existing revenues, and any needed rate or fee adjustments to reflect or consider inflation, construction needs, maintain bond covenants, and avoid major periodic increases.

B. **Annual Adjustments -** SDCs shall be adjusted annually using the Construction Base index to reflect inflation (Engineering News Record Construction Cost Index).

C. **Comprehensive Rate Studies -** Utility rate studies should be conducted at a minimum every five (5) years to update assumptions and ensure the long-term solvency and viability of the water utility.

D. **Master Plan and SDCs -** Every three to six years, or whenever the comprehensive master plan for the water utility is updated, the SDCs for the utility shall be updated to reflect the changes in planning, infrastructure, and capital financing.

1.3 Reserve Funds

The City's water utility shall strive to maintain adequate fund balances (reserves) in order to provide sufficient cash flows to meet operating and capital expenses. The City and water utility will maintain system funds as required by law, ordinance and bond covenant, so as to provide working capital (cash flow) for normal and ordinary operations, while also providing the financial ability to address economic downturns and system emergencies. If reserves are depleted, the reserves should be replenished over a five (5) year period to re-establish the minimum target level for the reserve.

For the purpose of smoothing rates to avoid large rate fluctuations and providing adequate funding of the utility, the following reserves will be established:

FUND BALANCE AND RESERVE POLICIES:

A. Operating Reserve – Operating reserves are composed of active working capital cash and operating reserves. These reserves reflect the timing difference between billing for revenues and payment of expenses. The operating reserve can also be used to cover unanticipated cash operating expenses or lower than expected revenue collections. The minimum operating reserve level for the water utility shall be set at approximately 60 days of annual O&M expenditures. This minimum operating reserve level should be reviewed annually to ensure adequate funding. The operating reserve may exceed the suggested minimum level.

B. Catastrophe/Emergency Reserve – A catastrophe/emergency reserve is essential to protect the City and the water utility against the financial impacts from unanticipated catastrophes or emergencies. It provides funding for emergency repairs or failure of essential equipment that needs to be immediately replaced. Typically the level of contingency/emergency funds that is deemed sufficient is an amount equal to the required cash flow for daily operations until such time that adequate emergency financing can be secured from conventional outside resources. At this time, the City has adequate financial resources, as a result of the operating reserve policy, such that the establishment of a catastrophe/emergency reserve is not required.

C. Capital Reserves – Capital reserves are used to fund the cash flow requirements of capital infrastructure construction. These reserves can increase and decrease significantly depending on available funding sources and the capital projects that are planned during the year. The City shall maintain a capital reserve approximately equal to one-year of renewal/replacement type projects.

D. System Development Charge Reserve – Revenues derived from system development charges (SDCs) should be segregated from other capital funds to assure that funds collected are expended only on growth/capacity-related capital facilities. These growth/capacity-related capital projects form the cost-basis and legal nexus for the establishment and collection of the SDCs. The SDC reserve is dependent upon customer growth and does not have a targeted minimum balance to be maintained. Funds used from this reserve shall only be used to fund growth/capacity-related capital projects or to pay for growth/capacity-related debt service. SDC funds shall not be used to fund current operating costs.

E. Bond Reserves – Bond reserves may be legally required for specific debt issues. Bond reserves will be established in accordance with the legal covenants of the debt issue.

Maintenance of minimum reserves should not, on its own, trigger the need for a rate adjustment. It will, however, trigger the need for management action, which may include the need to adjust rates. Reserves falling below the minimum reserve level may simply be a short-term cash-flow issue, but it may also indicate a more serious long-term

revenue/rate issue. When the reserves are drawn or fall below policy minimums, a management report shall be developed containing the reasons for withdrawals and any impacts to programs or rates due to this minimum level of reserves. The sufficiency of the reserves will be reviewed periodically by the Regional Water Panel and the City Council to ensure they are consistent with these policy targets.

1.4 Debt Issuance and Debt Management

The issuance of long-term debt is a valuable funding resource for the water utility. Used appropriately and prudently, long-term debt can help minimize the water utility's rates over time. The water utility shall minimize dependency on debt financing capital projects. Annual renewal and replacement capital projects should be adequately funded from rates. Funding levels for capital investments should be sufficient to meet capital improvement projections needed as outlined in the current capital improvement plan. Long-term debt should be considered for unusually large capital improvement projects or greater than normal capital plans. The utilities shall be managed to assure meeting target debt service coverage (DSC) requirements. The City shall not issue long-term debt to support operating costs.

A. **Renewal and Replacement Capital Projects –** The funding of on-going renewal and replacement capital projects should primarily be funded from rates. The use of long-term debt to fund renewal and replacement projects should be minimized whenever possible. In order to adequately support this funding method, the water utility shall budget and fund a reasonable amount of the cost for renewal and replacement of capital assets within the utility's rates. A simple measure of the minimum suggested funding is an amount equal to or greater than the annual depreciation of those assets.

B. **Use of Long-Term Debt As a Funding Mechanism –** The water utility may consider the use of long-term debt financing when it appears that a capital project or plan is of such a magnitude that it will negatively impact the utility's rates in the short-term. Generally, capital projects that may be considered for long term debt are significant non-recurring or unplanned events. The benefit of long-term debt financing is that it will help to smooth rates and avoid large rate fluctuations over the long-term, but it will also spread the costs of that asset over the useful life of asset and over time charge those customers that benefit from that asset.

   Other considerations for the use of long term debt include, but are not limited to:

   - Current interest costs (i.e. cost of debt) and terms of the debt (e.g. coverage requirements)
   - Current amount of the utility's outstanding debt levels
   - Consistency with the City's debt policy and overall debt level

C. **Types of Long-Term Debt –** The water utility may have different types of long-term debt available to it. The utility should strive to utilize the type of debt that has the lowest costs, while not imposing any burdensome covenants or reporting

requirements upon the utility.

D. **Bond (Legal) Covenants** - The City shall manage the utilities to meet any bond covenants associated with the long-term debt. Bond covenants are legal obligations of the borrower (City/utility).

E. **Debt Service Coverage (DSC) Covenant** – A long-term debt issue may contain a legal covenant regarding debt service coverage. A debt service coverage ratio is an important financial measure of the utility's ability to repay the outstanding debt obligation, and is reviewed for adequacy by banks and rating agencies. Generically, the DSC ratio is the utility's net operating income divided by the total annual debt service payment. For financial planning purposes, the annual debt service coverage ratio shall be greater than or equal to 1.50 on all outstanding debt that carries a legal bond covenant. For all outstanding debt, the water utility will maintain a debt service coverage ratio greater then or equal to 1.30. (Industry bond coverage ratio covenants are usually at 1.25.)

F. **Reporting Standards** - The City and water utility shall fully adhere to all applicable Government Standards Boards (GASB) requirements and recognized best practices for the accounting treatment and disclosure of debt obligations transactions in its audited financial statements and other relevant publications.

1.5 Debt Level and Capacity

As applicable, the City will follow and comply with all statutory debt limitations imposed by the State of Wyoming. As applicable, all City/water utility debt obligations will comply with statutory requirements.

A. **Revenue-Bonded Debt Capacity** - The issuance of debt for a utility will typically be supported by the revenues of the utility. The ability of the utility to fund and support revenue bonded debt will financially establish a debt level and capacity for revenue-bonded debt. However, for planning purposes, the debt to equity ratio of the water utility should not exceed 50% debt/50% equity.

B. **Non-Revenue Bonded Debt Capacity** - For non-revenue bonded debt issues, the City's Finance Manager shall provide a recommendation on debt level and capacity for the water utility, taking into account the City's other debt obligations and need for debt capacity.

1.6 Disposition of "One-Time" Revenues

"One-time" revenues are revenues of an unusual or infrequent nature which are likely not the result of the water utility providing treatment and collection services (e.g., legal settlement). Unless specifically earmarked otherwise, "one-time" revenues should be transferred to the appropriate reserve fund which best represents the reason for the "one-time" revenue (e.g., operating reserve, capital reserve, emergency reserve, etc.).

1.7 Balanced Operating Budget

The City shall separately track water utility operating and capital improvement accounts or budgets in order to provide for proper fund management, financial planning and long-term financial sustainability of the water utility. The water utility shall not subsidize other City-owned non-water utilities/facilities.

A. **Self-Supporting –** The water utility shall be self-supporting, such that current revenues fully fund current expenses and any fund balance or debt service coverage requirements.

B. **Capital Accounts -** Capital contributions from rates, grants, loans and other financing mechanisms will be accounted for separately in capital accounts, such that funds dedicated to capital purposes are expended only for capital purposes.

C. **Adequate Funding to Preserve System Assets -** The total operating expenditures of the water utility shall be funded at a level that will preserve the intended life and functional requirements of the water system.

D. **Evaluation and Monitoring of Costs -** Costs shall be evaluated and monitored to ensure that the water utility is operated in a cost effective and economically prudent manner.

E. **Maintenance of Sufficient Reserves -** The City will maintain sufficient reserves as required in these policies.

F. **Positive Cash Flow -** The water utility should have a cash flow (total revenue less O&M, taxes, debt service and capital projects funded from rates) greater than or equal to zero ($). Within the rate setting framework limitations, outside funds (e.g. 1% funds) may be used to off-set cash-flow requirements from rates.

G. **Strive for Rate Stability -** Rate stability reinforces that costs are being managed and controlled. Water rates should be stable in their ability to generate sufficient revenues, but also in the customer's perception of the rate changes from year to year.

   1. Needed water rate adjustments will attempt to minimize impacts to customers by phasing-in large rate adjustments over time (i.e. rate transition).
   2. Where possible, excess fund balances shall be used to offset rate increases with any remaining balances being used for approved capital purposes. The use of fund balances (reserves) shall not compromise the financial policy on establishing and maintaining minimum targeted reserves levels or adequate funding on a long-term self-sustaining basis.
   3. Annual rate reviews will consider and review an extended time frame (e.g. at least five years) to allow for a long-term view of the potential future rate impacts and provide the opportunity to financially position the utility to minimize rate impacts in future years.
   4. A comprehensive rate study should be conducted by an outside party at least every 5 years in order to assess the fairness of the rates to the City's ratepayers and to ensure that the necessary revenue is available for the City's operating and capital needs.

1.8 Revenue Diversification

As an enterprise funds, the water utility has very limited ability for revenue diversification. Where possible, the City should explore revenue sources such as grants, developer contributions, etc. Revenue sources such as property taxes or sales taxes should not be relied upon as a potential revenue (funding) source for the utilities.

2. PROGRAMMATIC, OPERATING AND CAPITAL POLICIES AND PLANS

2.1 Policies and Plans to Guide the Design of Programs and Services
2.2 Policies and Plans for Capital Asset Acquisition, Maintenance, Replacement, and Retirement

Programmatic, Operating, and Capital Policies and Plans

The water utility's operation and maintenance (O&M) program will be maintained at a level that assures system reliability and efficiency. A well thought out maintenance program will extend the life of the treatment and collection system and in turn reduce infrastructure costs in the long-term. Sufficient funding should be made to provide for adequate maintenance and/or replacement of capital plant and equipment.

A. **Funding to Meeting Regulations and Standards -** The City will adequately fund water utility costs for meeting current industry standards and regulations (e.g., Safe Drinking Water Act, etc.) in the annual financial review.

B. **Capital Improvement Plan -** The water utility, as part of its routine planning process, will develop a five-year capital improvement plan and update it annually.

C. **Adopted Capital Plan -** The water utility will make all capital improvements according to an adopted Capital Improvement Program (Master Plan and/or Budget). The exception to this policy is a repair or capital improvement under an emergency situation or condition.

D. **Types of Capital Projects -** The water utility's capital improvement program will consider legally mandated capital, growth-related capital, and renewal and replacement capital.

2.1 Policies and Plans to Guide the Design of Programs and Services

The water utility should be accounted for in separate self-supporting enterprise funds. A comprehensive planning document should be completed at least every five years that incorporates and details the water utility's infrastructure needs. The comprehensive planning document shall include a discussion of the assumed financing/funding sources for these capital improvements and the estimated impact to the water utility rates.

2.2 Policies and Plans for Capital Assets Acquisition, Maintenance, Replacement, and Retirement

Customer growth and system expansion as a result of new development have direct impacts upon a utility's infrastructure requirements, the financing of the "growth related" infrastructure, and customer rates. Through the establishment of specific financial/rate policies, the City will attempt to shelter the City's existing customers, as much as reasonably possible, from the financial/rate impacts of growth and system expansion.

A. **Growth-Related Capital Projects -** Within the City's capital improvement plans and rate study, growth-related capital projects shall be clearly identified.

B. **Financing of Growth-Related Projects -** The financing of growth-related capital projects may be funded from any of the available funding resources of the water utility. However, to better meet the City's stated policy, the use of long-term debt to finance growth-related projects will allow the City to better match the financing of these facilities to the timing of the customers as they connect to the system.

C. **Use of SDC Proceeds –** System development charge revenues will only be used for two purposes – to pay for growth-related debt service or to directly pay for growth-related capital improvements.

D. **Limitation on the Use of SDCs to Pay Debt Service -** The proportion of SDC revenues to pay for growth-related debt service shall be limited in any year, for planning/rate purposes, to 50% of the annual SDC revenue projected to be collected. The justification for this policy is to avoid over-reliance upon SDC revenue to pay growth-related debt service. Should growth and the corresponding SDC revenue be less than projected, the City should still have sufficient SDC revenue to make the annual debt service payments associated with the growth-related capital projects.

E. **Maintenance of Assets Records -** The City and water utility, on a yearly basis, will track and maintain asset records for all additions, replacements or retirements of assets. This will be maintained on an on-going basis in an asset management database and reported in a yearly asset record report.

EXHIBIT E

Gillette Regional Water Supply Project
Conceptual Water Rate Setting Methodology

Introduction

The City of Gillette owns and operates a regional water supply, treatment and transmission system. The development of regional water rates for wholesale supply will be guided by the overall principles established for the regional system along with the Regional Financial/Rate Setting Policies. This conceptual rate setting methodology is intended to incorporate these regional principles and financial/rate setting policies to establish regional rates which are cost-based and equitable between the various types of Regional wholesale customers served.

The policies presented herein are expressly for application to the regional wholesale supply system and are not necessarily applicable to the distribution system of the City of Gillette, however, this does not prohibit the City of Gillette from implementing these policies for its distribution system, if it so chooses.

Broad Intent of the Conceptual Methodology

The intent of developing a conceptual methodology is to provide a framework for the City and regional customers to develop and establish regional rates which meet these objectives:

- Based upon "generally accepted" financial planning and rate setting principles
- Conform or closely follow the established regional principles and regional financial/rate setting policies
- Establish rates that are cost-based and address the issues of financial viability and long-term sustainability of the regional water system
- For regional rate setting purposes, treat City and regional customers as equals
- Equitably assign costs to the regional customers and reflect the unique characteristics of the different regional levels of service

As used herein, "Regional customers" include both the City and the other regional customers.

Limitations of the Conceptual Methodology

This conceptual methodology has been developed in advance of the actual design and construction of the expanded regional system (New Madison Pipeline and facilities). This conceptual methodology has attempted to establish a methodology based upon the City's current data and information. As City data and information is refined to better capture regional costs and data, the regional rate setting methodology should be updated and revised accordingly. The regional rate setting methodology should be revised, as needed, to fairly reflect the original intent of the establishment of a regional system and the mutual shared benefits that may be derived from the regional system. The conceptual methodology should

not be blindly applied and any unintended consequences of the methodology should be equitably addressed and resolved at the regional level.

Local Rate Setting and the Establishment of Local Rates

This conceptual framework is intended to only determine regional supply rates, and all decisions concerning the establishment of local rates (i.e. regional supply costs + local distribution costs) shall remain the responsibility of the local community or utility. The use of tax proceeds or other local funding sources to fund (off-set) local operating or capital costs is a local decision. However, as a part of the JPA, the Regional customers have agreed that at no time shall a local retail rate be set at an amount that is less than the supply cost of water from the regional system (i.e. local funding credits shall be no greater than local distribution costs).

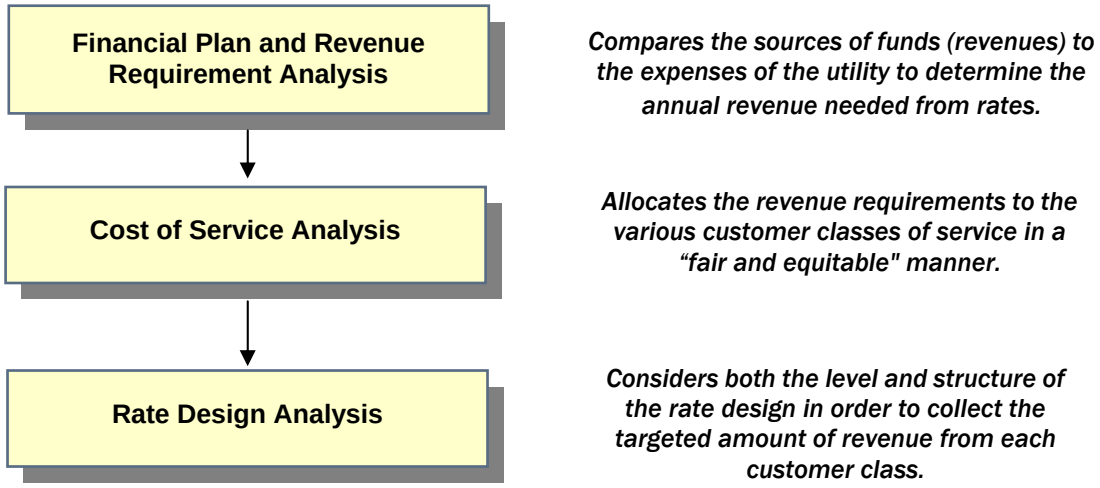
Defining "Generally Accepted" Rate Setting Methods

The process of setting rates and developing sound rate structures needs to incorporate several criteria and reflect well-documented fundamentals. The conceptual rate setting methodology for the regional system is based in part upon the water rate setting manual: ***Principles of Water Rates, Fees, and Charges,***[1] published by the American Water Works Association (AWWA), which is currently considered the industry standard for rate setting. The basic principles and methodologies outlined in the AWWA M-1 manual have been used as a starting point and then tailored to reflect the unique characteristics of the regional water system.

Overview of the Rate Setting Process

A comprehensive rate study is generally comprised of three interrelated analyses. The interrelated analyses are a revenue requirement analysis, a cost of service analysis and a rate design analysis. Figure 1 provides an overview of each analysis.

Figure 1
Overview of the Comprehensive Rate Setting Process



1 American Water Works Association, Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices, M1 (Fifth Edition, 2000).

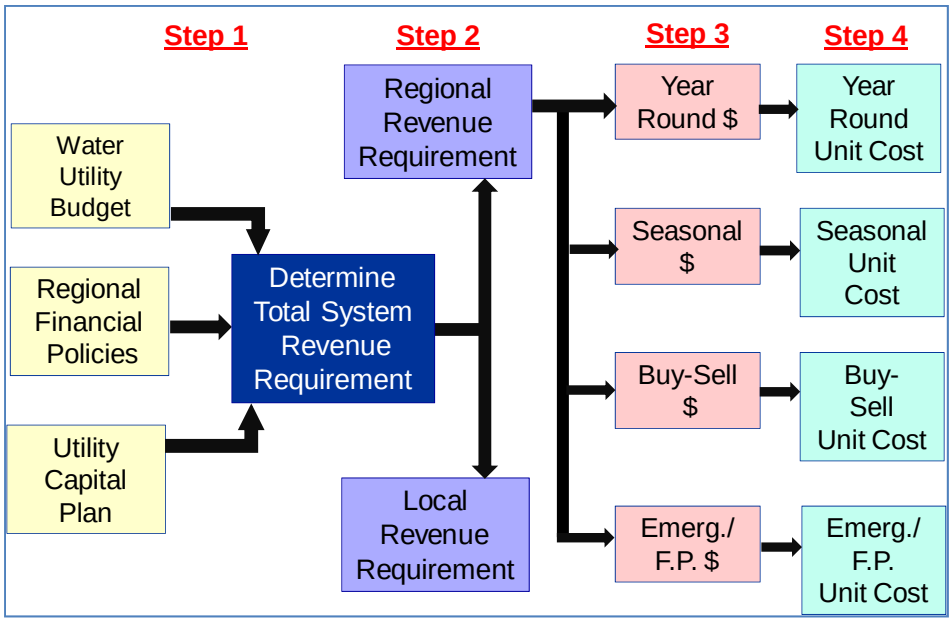
The basic framework outlined above has been used to develop the conceptual methodology.

Overview of the Regional Methodology

To establish Regional rates, a four step rate setting process has been developed. The four step process is summarized as follows.

Step 1	**Determine revenue requirements for the City of Gillette water system**
Step 2	**Allocate (assign) the City's revenue requirement between Regional and City Retail (Local Distribution Costs)**
Step 3	**Allocate the Regional revenue requirement between the regional customers and the various levels of service**
Step 4	**Develop Unit Costs/Rate Designs for the Various Levels of Regional Service**

The four steps incorporate the development of a revenue requirement analysis, cost of service analysis and the design of regional rates. Graphically, the four-step process of establishing regional rates is shown below.



A more detailed discussion and overview of the various steps is provided next.

Detailed Regional Rate Setting Methodology

The four steps noted above have been subdivided into more detailed steps. In addition, for each step, detailed exhibits have been included to clearly provide a specific analytical framework for developing the Regional rates. The Regional rate setting methodology and detailed exhibits were developed based upon the Regional principles, the Regional financial and rate setting policies, "generally accepted" rate setting methods as defined by the AWWA M-1 manual and the best available information concerning the City's data and records.

Step 1 – Determine Revenue Requirements for the City of Gillette Water System

The first step of the regional rate setting methodology is to determine the City's overall revenue requirement. In establishing a regional system, it is not proposed or expected that the City will establish a separate enterprise fund or create a separate accounting system for the regional system. Given that, the first step of the regional rate setting process is to have the City establish a total revenue requirement for their water system. The specific steps associated with this portion of the Regional rate analysis are provided below.

Step 1	Determine revenue requirements for the City of Gillette water system
Step 1a	Utilize a "cash basis" methodology to determine the revenue requirements. The "cash basis" or "cash needs" approach is comprised of operation and maintenance expenses, taxes/transfer payments, debt service (P+I) and capital improvements funded from rates. May also include a component for change in working capital/reserves
Step 1b	Project costs for a minimum five (5) year period. City's historical costs or current operating/capital budget may be used as a starting point to project the costs. Projections should be deveoped using the "best available" information and costs. Cost for projected periods (e.g. O&M expenses) should be projected using assumed escalation factors for the future periods.
Step 1c	Review the Regional and local capital improvement plan to determine the funding plan for capital improvements. Develop the "CIP from Rates" component for the revenue requirements.
Step 1d	Projections should be developed while maintaining appropriate financial planning criteria. This shall include maintaining minimum reserve levels, meeting minimum debt service coverage ratios and providing adequate funding for capital improvements from rates.

The key inputs into the City's revenue requirement analysis will be the City's historical or adopted operating and capital budget/plan, along with the regional financial and rate setting policies. In viewing Step 1a through 1d, it should be noted that a "cash basis" or "cash needs" methodology will be used for the analysis. In addition, the revenue requirement analysis will be projected for at least a five (5) year period to allow for some understanding of potential future costs and rates. Finally, the revenue requirements shall adhere as closely as possible[2] to the financial planning and rate setting criteria contained in the Regional financial planning and rate setting policies. Provided below in Table 1 is an overview of the revenue requirement methodology, and Table 2 is the linkage between the methodology and the Regional financial policies and the AWWA M-1 manual.

2 The regional financial and rate setting policies are intended to provide a clear policy direction, but rate transition may be needed to maintain or achieve policies (e.g. to establish minimum reserves levels)

Table 1 – Overview of the City's Revenue Requirement Methodology

Gillette Regional Water Rate Calculations

Step 1 Determine the Total Revenue Requirements for City of Gillette Water System

Step 1 a & b - Establishing the Analytical Framework for the Revenue Requirements

Concepts:
- Develop cost-based rates using "generally accepted" methodologies; cash basis or "cash needs" methodology
- The water utility is an enterprise fund and self-supporting
- Revenue requirement analysis determines the overall funding requirements of the utility, prior to any consideration of Regional versus local (distribution) costs

Line No.	Account Description	Approved Budget 2011	Projected Years 2012	2013	2014	2015	Notes
	+ **Operation and Maintenance Expenses - [1]**						
1	441.11.10 Regular Employee Wages	$#,###	$#,###	$#,###	$#,###	$#,###	Input from budget and escalated
2	441.13.10 Regular Employee Overtime	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
3	441.14.20 (include all O&M account detail)	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
4	441.32.50 Internal Services	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
5	441.43.41 Distribution System Maint.	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
6	Incremental or Increased Service Level O&M	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
7	***Total Operation and Maintenance Expenses***	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum of Lines 1 - 6
	+ **Taxes and/or Transfer Payments**						
8	- Tax A	$#,###	$#,###	$#,###	$#,###	$#,###	Input from budget and escalated
9	- Tax B	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
10	- Transfer Payment 1	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
11	**Total Taxes and Transfer Payments**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum of Lines 8 - 10
	+ **Debt Service Payment**						
12	- Regional Debt (P+I)	$#,###	$#,###	$#,###	$#,###	$#,###	From Regional Debt Schedule
13	Less: Off-Sets (e.g. Cap. Facil. Tax; as appropriate)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	Input based upon avail. of funds
14	Less: Regional SDCs (≤ 50% of Reg. SDCs Received)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	Input based upon avail. of funds
15	**Net Regional Debt Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 12 - Line 13 - Line 14
16	- Local (Distribution) Debt (P+I)	$#,###	$#,###	$#,###	$#,###	$#,###	From Local Debt Schedule
17	Less: Off-Sets (e.g. 1% contribution - as appropriate)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	Input based upon avail. of funds
18	**Net Local (Distribution) Debt Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 16 - Line 17
	+ **Capital Improvements Funded From Rates [2]**						
	- Regional Capital Improv. Funded From Rates						
19	Existing Regional Assets	$#,###	$#,###	$#,###	$#,###	$#,###	CIP L. 23 (Step 1c); ≥ Annual Deprec. Exp.
20	New Madison Expansion	#,###	#,###	#,###	#,###	#,###	Reverse sum of the year's digits [3]
21	- Local (Distribution) Cap. Improv. Funded From Rates	#,###	#,###	#,###	#,###	#,###	CIP L. 24 (Step 1c); ≥ Annual Deprec. Exp.
22	**Total Capital Improvement Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum Lines 19 - 21
23	+ **Change In Working Capital**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	May be + or - change
24	+ **Other Expenses**	**#,###**	**#,###**	**#,###**	**#,###**	**#,###**	If not included above
25	= **Total Water System Revenue Requirement**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	L. 7 + 11 + 15 + 18 + 22 + 23 + 24
26	– Less: Miscellaneous Revenues	$#,###	$#,###	$#,###	$#,###	$#,###	Input Misc. (Non-Rate) Revenues
27	= **Net Revenue Requirement**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 25 - L 26

[1] - Ideally, the City will modify their accounting system to functionally track the O&M costs associated with the regional and local system. A "functional" accounting system would have a chart of accounts that segregated costs between source of supply, treatment, regional transmission, distribution, customer accounting, customer service and general and administrative costs.

[2] - See worksheet (step) 1C for the calculation of capital improvements funded from rates. Line 23 and 24 of that worksheet is brought forward to this worksheet for inclusion as the amount of capital improvements that should be funded from rates for regional and local projects.

[3] - Reverse sum of the year's diget depreciation method is used to phase in cost of the Madison project. Instead of year 1 having the greatest depreciation expense, the schedule is reversed and it has the lowest. While not a typical accounting method, it is reasonable and appropriate for purposes of establishing rate funding for the repair, maintenance and eventual replacement of this facility.

Table 2 – Linkage Between the City's Revenue Requirement Methodology and the Regional Financial and Rate Setting Policies and the AWWA M-1 Manual

Gillette Regional Water Rate Calculations

Step 1 Determine the Total Revenue Requirements for City of Gillette Water System

Step 1 a & b - Cross Reference to Regional Financial Policies and AWWA Manual

		Reference	
		AWWA M-1	**Regional Policy**
Concepts:	• Develop cost-based rates using "generally accepted" methodologies	→	1.1 and 1.2
	• The water utility is an enterprise fund and self-supporting	→	1.2
	• Revenue requirement analysis determines the overall funding requirements of the utility, prior to any consideration of Regional versus local (distribution) costs	→	1.2(A.)

Line No.	Description	Approved Budget 2011	Five-Year Projection	P.17	1.2(A.) 2
	+ **Operation and Maintenance Expenses - [1]**		Cash Basis Rev. Req.	P.5	1.2(A.) 1
1	441.11.10 Regular Employee Wages	$#,###	Escalation of Costs	P.5	
2	441.13.10 Regular Employee Overtime	#,###			
3	441.14.20 (include all O&M account detail)	#,###			
4	441.32.50 Internal Services	#,###			
5	441.43.41 Distribution System Maint.	#,###			
6	Incremental or Increased Service Level O&M	#,###		P.5	1.2(A.) 3
7	***Total Operation and Maintenance Expenses***	**$#,###**			
	+ **Taxes and/or Transfer Payments**			P.25	
8	- Tax A	$#,###			
9	- Tax B	#,###			
10	- Transfer Payment 1	#,###	Inclusion of Interdept.Transfer Pmt.	P.6, 22	
11	**Total Taxes and Transfer Payments**	**$#,###**			
	+ **Debt Service Payment**			P.34	
12	- Regional Debt (P+I)	$#,###			
13	Less: Off-Sets (e.g. Cap. Facil. Tax - as appropriate)	(#,###)			
14	Less: Regional SDCs (≤ 50% of Reg. SDCs Received)	(#,###)			5.2(D.)
15	**Net Regional Debt Funded From Rates**	**$#,###**			
16	- Local (Distribution) Debt (P+I)	$#,###			
17	Less: Off-Sets (e.g. 1% contribution - as appropriate)	(#,###)			
18	**Net Local (Distribution) Debt Funded From Rates**	**$#,###**			
	+ **Capital Improvements Funded From Rates**				
	- Regional Capital Improv. Funded From Rates		Source: City's CIP	P.33	1.2(A.) 4
19	Existing Regional Assets	$#,###	≥ Annual Deprec. Exp.		1.2(A.) 5
20	New Madison Expansion	#,###	Reverse sum of the year's digits (need to add to fin. policy)		
21	- Local (Distribution) Cap. Improv. Funded From Rates	#,###			1.2(A.) 5
22	**Total Capital Improvement Funded From Rates**	**$#,###**	Considers: R&R, Growth, Mandated		1.2(A.) 6
23	+ **Change In Working Capital**	**$#,###**			1.3(A.)
24	+ **Other Expenses**	**#,###**			
25	= **Total Water System Revenue Requirement**	**$#,###**			
26	– Less: Miscellaneous Revenues	$#,###			
27	= **Net Revenue Requirement**	**$#,###**			1.2(A.) 7

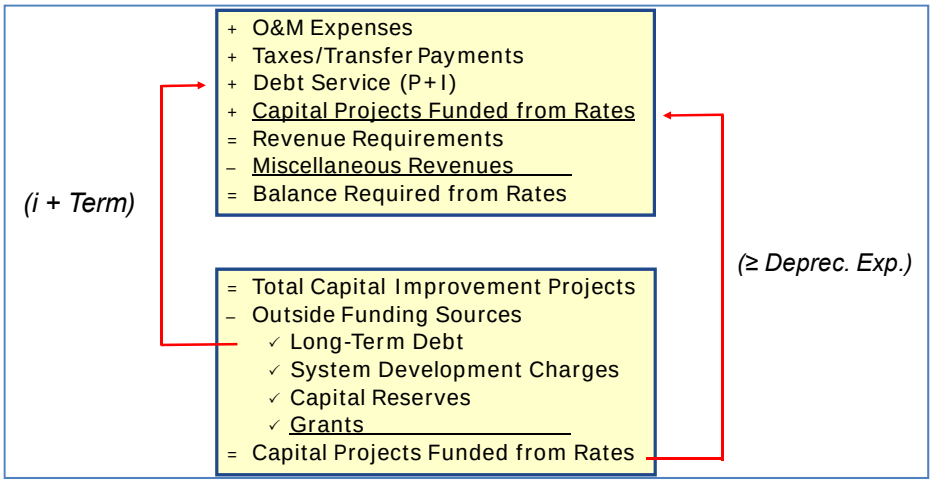
[1] - Note: The City's chart of accounts may change or be modified in the future to better capture and segregate regional and local costs

Note: AWWA M-1 Manual, Principle of Water Rates, Fees and Charges, Fifth Edition

It should also be noted that Step 1 determines the revenue requirements *prior* to allocating any costs to regional or local systems (which is addressed in Step 2). One of the primary

assumptions in establishing revenue requirements is that the City's water utility is a self-supporting (or enterprise) system from a financial and rate setting perspective.

Cash-Basis Method **-** In establishing the revenue requirements, the "cash basis" approach is utilized. Under the cash-basis or "cash needs" approach the revenue requirement is the sum of operation and maintenance expenses, taxes or transfer payments, debt service (P+I) and capital improvements funded from rates. This basic formula is summed for each year resulting in the total revenue requirement. The net revenue requirements, or the balance required from rates, is determined by subtracting miscellaneous revenue (excluding system development charges), from the total revenue requirement. The funding of capital improvements is an important element that will impact the revenue requirements. Capital improvements may have multiple funding sources, but an important concept is that, at a minimum, capital improvement funding from rates should be at least equal to, or greater than, annual depreciation expense. The purpose of this level of funding is to attempt to provide adequate funding for renewal and replacement of the City's existing water facility assets. Funding at depreciation expense is not the same as replacement cost, and for that reason, if the utility can fund an amount greater than annual depreciation expense, it should attempt to do so. However, the level of funding should attempt to correspond with the cash-flow needs or requirements during that particular time period, and any excess funding should be placed in the appropriate capital reserve.



City's Chart of Accounts - More specifically to Table 1, the City's chart of accounts will provide the basis for the individual "line-items" in this analysis. The City's chart of accounts for the water system may be modified over time to better functionally track the costs associated with both the regional and the local distribution system.

Time Period - The methodology requires, at a minimum, a five year projection of costs. This may include the current adopted budget period and an additional four years of projected costs. In projecting costs for the final four years, the City may reasonably escalate costs based upon their best judgment of future cost escalations.

O&M Expenses - Within Table 1, the City's complete chart of accounts for O&M was not included. Obviously, within the development of the City's revenue requirement analysis, the full chart of O&M accounts should be included. Line 6 on Table 1 is a line added within this methodology to allow the City to clearly identify any incremental or increased levels of service (e.g. additional personnel or new services).

Taxes or Transfer Payments - The "cash basis" methodology includes taxes or transfer

payments. The City may not have taxes or transfer payments, and if so, this portion of the revenue requirement may be deleted or simply left in the model and no costs ($0) entered.

Debt Service – Debt service includes both principle and interest payments (and potentially a reserve payment). In developing the revenue requirement methodology, it is assumed that debt will be clearly delineated between "regional" debt and "local" debt. Table 1 has segregated regional debt from local debt. Within this exhibit the total debt service payment (gross payment) shall be input. There are potential funding sources other than rates that may be applied against the debt payment. In the case of regional debt, the capital facilities tax is presumed to be a critical funding source for the repayment of debt on the Madison project. The other potential non-rate funding source for regional debt service would be regional system development charges (SDC). The financial policies limit the amount of anticipated SDCs[3] that may be applied against debt in any single year. If sufficient funds are available within the Regional SDC reserve, those funds may be applied against any expansion/growth-related regional debt service. No "1% tax" funds are to be applied against Regional debt service. The difference between the gross regional debt service payment and these funding sources produces the net regional debt service payment from rates. At least initially, it is presumed that the net regional debt service payment from rates will be $0, as the Capital Facilities Tax (CFT) will provide a corresponding off-set to the regional debt.

Local debt service is also segregated within the City's revenue requirement. Similar to the regional debt service, the total or gross local debt service payment should be entered. The City may have certain non-rate funding sources available to off-set the local debt service payment. These may include the 1% local funds or other local funding sources.

Capital Improvements Funded From Rates – Capital improvement projects (CIP) may be funded in a number of different ways, but a key component for funding renewal and replacement related projects is rate funding. Table 1 provides an overview of the analytical framework to analyze capital improvements and the various funding sources. Regional projects are to be divided between regional replacement/legally mandated projects and regional growth/expansion projects. Regional CIP funding from rates for renewal and replacement projects should be greater than or equal to annual depreciation expense. Table 1 noted that renewal and replacement funding may be divided between existing assets and the Madison project. The reason for this division is to not over-fund the Madison project in the early years. To determine depreciation for that particular asset, a "reverse sum of the year's digits" method is prescribed.

3 "Anticipated" refers to the SDC's projected to be received in the current year from new connections.

Table 3 – Framework for Reviewing Capital Improvement Plans and Determining the Portion of CIP Funded From Rates

Gillette Regional Water Rate Calculations

Step 1 Determine the Total Revenue Requirements for City of Gillette Water System

Step 1c - Reviewing the Capital Improvement Plans and Determining the Portion of CIP from Rates

Concepts:
- Regional CIP is segregated and seperately funded from "Local" CIP
- Regional CIP should be segreated between replacement/mandated and growth/expansion projects
- Regional CIP should fund, at a minimum, an amount equal to or greater than annual deprec. expense for the regional system
- Regional SDCs may be applied against regional growth/expansion projects, but not Regional Replacement

Line No.	Account Description	Approved Budget 2011	Projected Years 2012	2013	2014	2015	Notes
	Regional Capital Improvement Projects -						
	Regional Replacement and Legally Manadated Projects -						
1	Regional Project 1	$#,###	$#,###	$#,###	$#,###	$#,###	From Regional CIP
2	Regional Project 2	#,###	#,###	#,###	#,###	#,###	From Regional CIP
3	Regional Project 3, etc.	#,###	#,###	#,###	#,###	#,###	From Regional CIP
4	Total Regional Replacement and Mandated Projects	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum Lines 1 - 3
	Less: Outside Funding Sources						
5	Long-Term Borrowing (Low-Interest & Rev. Bonds)	$#,###	$#,###	$#,###	$#,###	$#,###	As needed
6	Existing Regional Capital Reserves	#,###	#,###	#,###	#,###	#,###	As available
7	Capital Facilities Tax (or Comparable Source)	#,###	#,###	#,###	#,###	#,###	As available (regional 1% portion)
8	Grants	#,###	#,###	#,###	#,###	#,###	As available
9	Other Non-Rate Funding Sources	#,###	#,###	#,###	#,###	#,###	As available
10	Total Outside Funding Sources	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum Lines 5 - 9
11	Regional Replac./Madated CIP Funded From Rates	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	L. 4- 10 (≥ Regional Annual Deprec. Exp.)
	Regional Growth/Expansion Projects -						
12	Regional Growth/Expansion Project 1	$#,###	$#,###	$#,###	$#,###	$#,###	From Regional CIP
13	Regional Growth/Expansion Project 2	#,###	#,###	#,###	#,###	#,###	From Regional CIP
14	Regional Growth/Expansion Project 3, etc.	#,###	#,###	#,###	#,###	#,###	From Regional CIP
15	Total Regional Replacement and Mandated Projects	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum Lines 12- 14
	Less: Outside Funding Sources						
16	Long-Term Borrowing (Low-Interest & Rev. Bonds)	$#,###	$#,###	$#,###	$#,###	$#,###	As needed
17	Existing Regional Capital Reserves	#,###	#,###	#,###	#,###	#,###	As available
18	Capital Facilities Tax (or Comparable Source)	#,###	#,###	#,###	#,###	#,###	As available (regional 1% portion)
	Regional System Development Charges	#,###	#,###	#,###	#,###	#,###	As available
19	Grants	#,###	#,###	#,###	#,###	#,###	As available
20	Other Non-Rate Funding Sources	#,###	#,###	#,###	#,###	#,###	As available
21	Total Outside Funding Sources	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum Lines 16 - 20
22	Regional Growth/Expansion CIP Funded From Rates	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	If possible, should be $0
23	**Total Regional CIP Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 11+ Line 22
	Local Capital Improvement Projects -						
	Note: City may use a similar framework to determine their level of CIP funding from rates for local (distribution-related) projects						
24	**Total Regional CIP Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	

The "sum of year's digits" depreciation method is a commonly used accounting method to accelerate deprecation of an asset. For rate setting purposes for the regional system, the same concept is used, but in reverse. That is, the objective is to have minimal rate funding in the early years of the Madison project, and then as the project nears the end of its depreciable life, funding increases. Table 4 provides a simple example of this method of determining the

annual depreciation expense for the Madison project

Table 4 – Example of the "Reverse Sum of the Year's Digits"

Assume a 10-year Accounting (Useful) Life
Original Cost of Major Capital Items - $1,000,000

	Year	Reverse Sum of the Digits [1] Calculation	Reverse Sum of the Digits [1] %	Orignal Cost	Depreciation Expense	Accum. Depreciation	Net Book
	1	1/55	1.82%	$1,000,000	$18,182	$18,182	$981,818
	2	2/55	3.64%	$1,000,000	36,364	54,545	945,455
	3	3/55	5.45%	$1,000,000	54,545	109,091	890,909
	4	4/55	7.27%	$1,000,000	72,727	181,818	818,182
	5	5/55	9.09%	$1,000,000	90,909	272,727	727,273
	6	6/55	10.91%	$1,000,000	109,091	381,818	618,182
	7	7/55	12.73%	$1,000,000	127,273	509,091	490,909
	8	8/55	14.55%	$1,000,000	145,455	654,545	345,455
	9	9/55	16.36%	$1,000,000	163,636	818,182	181,818
	10	10/55	18.18%	$1,000,000	181,818	1,000,000	0
Sum of the Digits	**55**		100.00%				

[1] - The sum of the digets depreciation method is used to accelerate depreciation expense. The "reverse" sum of the digits method is not "generally accepted" nor suggested for accounting purposes, but is only recommended for rate setting purposes to better time the need for cash-flow and the timing of the eventual renewal and replacements of major capital items.

The intent of this approach for determining the annual depreciation for the Madison project is not to change the deprecation method for purposes of the City's accounting of the Madison assets. In developing the Regional rates, the City will need to develop a separate analysis to determine the appropriate target for depreciation expense and CIP from rates.

The funding sources for renewal and replacement/legally mandated projects may include capital facility tax funds, if available. Regional system development charges may not be used for renewal and replacement/legally mandated projects. For growth or expansion related projects, similar funding sources may be used, but in this case, the use of regional system development charges is appropriate. There is no target for minimum funding for CIP from rates for growth/expansion projects. Ideally, growth/expansion related projects would not be funded from rates.

The development of the local CIP may be included in this model. However, since it is a local cost, the regional rate setting method is not impacted by the approach or level of funding within the rates for local CIP projects.

Change in Working Capital – Change in working capital is intended to allow the regional system to either accumulate cash to add to reserves, or to use reserves to off-set the revenue requirements.

Other Expenses – Other expenses is included as a category to simply be an additional item within the revenue requirements when an expense may not be clearly categorized as any of the five previous components.

With the addition of these components, the total Regional revenue requirement can be summed. From this amount, any miscellaneous revenues are deducted and the balance is the amount of funding required from rates.

In developing the revenue requirements, certain financial planning criteria must also be considered: maintenance of minimum reserves and meeting or exceeding debt service coverage ratios.

Reserves – Maintenance of minimum reserves is a part of Step 1d. Reserves have been segregated into various components. The Regional financial policies (Policy 1.3 A-E) outlines these reserves. As shown in Table 5, the reserve funds will include:

- ***Operating Reserve – The operating reserve is used to meet daily cash flow requirements. The operating reserve is necessary to account for the lag between when costs are incurred and when revenues are received. Financial policies set the minimum operating reserve at approximately 60 days of O&M costs.***
- ***Capital Improvement Reserve – This reserve will fluctuate depending on the number and costs of planned capital improvement projects in any single year. The targeted minimum reserve level for capital reserves will be one-year of repair and replacement costs (i.e. annual depreciation expense).***
- ***Regional System Development Charge (SDC) Reserve – Regional system development charges may be collected and, if they are, they should be placed in the Regional System Development Charge Reserve. The use of Regional SDCs is limited to Regional growth-related capital projects or Regional growth-related debt service. Regional system development charges may not be used for operation and maintenance expenses. There is no minimum reserve for the Regional SDC Reserve.***
- ***Local Plant Investment (SDC) Reserve – The local plant investment reserve is established to segregate any SDCs collected for local facilities and they are to be used for local facilities.***
- ***Bond Reserve – A bond reserve is often established as a legal requirement (bond covenant) associated with a bond issue. The bond covenant will establish the minimum funding for the bond reserve. A typical minimum funding level for a bond reserve within a bond covenant is one-year of debt service.***

This Regional framework shall not limit the City from establishing additional reserves. For example, an emergency or catastrophe reserve has not been established. It was presumed that the City would have sufficient financial resources within the City (e.g. general fund) to not require the need for an emergency or catastrophe reserve.

Table 5 – Maintenance of Minimum Reserve Levels

Gillette Regional Water Rate Calculations

Step 1 Determine the Total Revenue Requirements for City of Gillette Water System

Step 1d - Meeting Financial Planning Criteria - Maintenance of Minimum Reserve Levels

Concepts:
- Reserves are used to balance cash flows for the utility
- Financial policies establish a "minimum" reserve level by type of reserve
- Reserves are segregated by type of reserve to clearly demonstrate need for reserves and use of reserves

Step 1 Determine Revenue Requirements for City of Gillette Water System - Fund Balances

Line No.	Financial Reserves	Approved Budget 2011	Projections 2012	2013	2014	2015	Min. Bal. Notes	References: AWWA Manual M1	References: Regional Financial Policies
	Operating Reserve Fund								*1.1, 1.3 (A)*
1	Beginning Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###			
2	+ Additions	# ###	# ###	# ###	# ###	# ###			

Policy Reference: 1.4. D-E – Debt Service Coverage Ratios. When a water utility issues debt, whether revenue bonds or similar forms of long-term debt, prudent financial management as well as bond covenants require the utility to generate annual net revenues sufficient to ensure debt service payments can be paid. The "coverage ratio" is typically the total revenue, less O&M costs and taxes, divided by the annual debt service payment. The City's financial policies set the projected coverage ratio at 1.5 for planning purposes, while all outstanding debt should be greater than or equal to 1.3 (typical bond covenants require a 1.2 or 1.25 ratio). Table 5 outlines these criteria and calculation methods.

Debt Service Coverage – Debt service coverage (DSC) ratios are a financial measure of the utility's ability to repay debt. Debt service coverage is a bond covenant typically required of a revenue bond and the rate covenants associated with the bond will specify the method for calculation DSC and the minimum DSC that must be met. Other types of long-term debt (e.g. SRF) may not have a DSC requirement or a minimum covenant. The DSC test is for all outstanding debt, even if the debt does not have a rate covenant for DSC. The minimum DSC target is 1.50.

Table 6 – Debt Service Coverage Ratio Test

Gillette Regional Water Rate Calculations

Step 1 Determine the Total Revenue Requirements for City of Gillette Water System

Step 1d - Meeting Financial Planning Criteria - Debt Service Coverage Ratio Test

Concepts:
- Regional and local system may issue debt to finance/fund capital projects
- A debt service coverage (DSC) ratio test may be a bond covenanat on certain debt issues
- Meeting DSC may be only required on certain bonds, but this test financially demonstrates the ability to repay all outstanding debt

Step 1 **(Cont.) Determine Revenue Requirements for City of Gillette Water System**

Debt Service Coverage Ratios	Approved Budget 2011	Projections 2012	2013	2014	2015	References: AWWA Manual M1	Regional Financial Policies
Regional Debt							
Before Rate Adjustment	as calc.	as calc.	as calc.	as calc.	as calc.		
After Rate Adjustment	≥ 1.50	≥ 1.50	≥ 1.50	≥ 1.50	≥ 1.50		*1.4 (D,E)*
Local Debt							
Before Rate Adjustment	as calc.	as calc.	as calc.	as calc.	as calc.		
After Rate Adjustment	≥ 1.50	≥ 1.50	≥ 1.50	≥ 1.50	≥ 1.50		*1.4 (D,E)*
Total Debt Coverage - All Outstanding Debt						*P. 323*	
Before Rate Adjustment	as calc.	as calc.	as calc.	as calc.	as calc.		
After Rate Adjustment	≥ 1.50	≥ 1.50	≥ 1.50	≥ 1.50	≥ 1.50		*1.4 (D,E)*

Method of Calculation of DSC

Method 1: As prescribed by the Official Statement for the debt issue

Absent a Prescribed Method - Method 2:

$$\frac{\text{Total Revenue Sources[1] - O\&M Expenses and Taxes}}{\text{Annual Debt Service Payment}} = \text{DSC}$$

[1] - Total revenue sources typically do not include plant investment fees or regional system development charges. It likely would include a 1% tax or comparable "stable" (non-growth dependent) funding sources.

This concludes the discussion of the Step 1 development of the City's revenue requirement.

Step 2 – Allocate (Assign) the City's Revenue Requirement Between Regional Supply and City Retail (Local Distribution Costs)

The second step of the regional rate setting methodology is to allocate or assign the City's revenue requirement, as developed in Step 1, between the Regional system and the Local system. There are three sub-steps associated with the process. Shown below are the various detailed steps.

Step 2	**Allocate (assign) the City's revenue requirement between Regional Supply and City Retail (Local Distribution Costs)**
Step 2a	Develop allocation methods that may be used to allocate costs between regional and local
Step 2a	Select the revenue requirement time period for allocation between regional and local that rates will be established around.
Step 2c	Allocate the revenue requirements between regional and local using the "best available" data and information to equitably allocate the costs.

Step 1 developed a revenue requirement on a Regional and system wide basis. Given that, the second step will allocate or assign the revenue requirement between the Regional system and the local (distribution) system. The first step of this process (2a) requires the development of the allocation methods that may be used to allocate costs between the regional and local system.

Table 7 provides an overview of the analytical framework that may be used to create allocation factors. The allocation factors shown in Table 7 are examples of the types of allocation factors that may need to be developed to fairly allocate the costs between the Regional and local system. The development of a fair methodology to allocate costs between the Regional and local systems should not be constrained by the type or number of allocation methods shown on Table 7.

The City may need to begin collecting certain data and information to allow for the development of these types of allocation factors (e.g. labor hours/wages). In other cases, some judgment may be required in the development of an allocation factor. The customer allocation factor is divided into two types – actual customers and weighted customers. The actual customer allocation factor is based upon the number of metered connections.[4] In contrast, weighted customers uses a "weighting factor" to take into account the extra time or effort that may be expended for customer related types of services. For example, the cost to read a meter and bill a customer may require more time and effort for a regional customer compared to a City retail customer. The weighting factor is intended to take this dis-proportionality into account and create an allocation factor that fairly assigns costs. The weighting factor of "10" shown in Table 7 is for example only and the actual weighting factors should be based upon a review by the City. However, in the end, the development of the weighting factor will require some judgment on the part of the City.

4 Regional connections are defined as the master meter for the regional customer.

Table 7 – Development of Allocation Methods

Gillette Regional Water Rate Calculations

Step 2 Allocate the Revenue Requirements Between Regional and Local

Step 2a - Establishing the Analytical Framework for the Allocation to Regional Costs

Concepts: • Develop allocation methods to allocate the City's total revenue requirements between regional and local

Step 2a - Determine Methods of Allocation; Note: Example of Possible Methods, Others may be developed and used

Method A - Labor Hours/Wages or FTE's

Regional	xxx	xx.x%
Local	xxx	xx.x%
Total	xxx	100.00%

Method B - City Total Plant Investment

Regional	$xxx	xx.x%
Local	xxx	xx.x%
Total	$xxx	100.00%

Method C - Regional Volume Sales (1,000 gal)

Regional	xxx	xx.x%
Local	xxx	xx.x%
Total	xxx	100.00%

Method D - Length of Mains (miles)

Regional	xxx	xx.x%
Local	xxx	xx.x%
Total	xxx	100.00%

Method G - Revenues (Regional Portion vs. Local Portion)

Regional	$xxx	xx.x%
Local	xxx	xx.x%
Total	$xxx	100.00%

Method H - ???? Others as defined or needed

Regional	xxx	xx.x%
Local	xxx	xx.x%
Total	xxx	100.00%

Method I - Direct - 100% Regional

Regional	xxx	100.0%
Local	xxx	0.0%
Total	xxx	100.0%

Method J - Direct - 100% Local

Regional	xxx	0.0%
Local	xxx	100.0%
Total	xxx	100.0%

Method E and F - Number of Metered Customers and Weighted Customers

	Metered Connections		Weighting Factor[2]	Weighted Connections	
Regional	xxx	xx.x%	10.0	xxx	xx.x%
Local [1]	xxx	xx.x%	1.0	xxx	xx.x%
Total	xxx	100.00%		xxx	100.00%
		Method E			**Method F**

[1] - Number of local metered connections (e.g. residential and non-resdential)
[2] - Weighting factor for example only; Final weighting factor to be determined based upon estimated level of effort required to serve regional customers

Step 2b selects the test period or time period to be allocated. It is presumed that this would be a future or projected test period, or the time over which the Regional rates would be established. While the example shown indicates the allocation of a one-year period, a multi-year period could also be presumed (e.g. a 2 year period).

Table 8 provides the framework for the analysis. The methods of allocation shown on the Table are for illustrative purposes only. The City will need to determine the appropriate and most equitable methods to allocate the specific costs. This will be dependent upon the level of detail contained in the accounts.

Table 8 – Allocation of the Revenue Requirements Between Regional and Local

Gillette Regional Water Rate Calculations

Step 2 Allocate the Revenue Requirements Between Regional and Local

Steps 2b&c - Selection of Time Period and Allocation of the Total Revenue Requirement to Regional

Concepts:
- Select the time period (year) to be allocated
- Determine the allocation method to be applied to each cost
- Allocate the costs between regional and local

Line No.		Account Description	Approved Budget 2011	Allocation Method [1]	Allocation % Regional	Allocation % Local	Allocated $ Regional	Allocated $ Local	
	+	**Operation and Maintenance Expenses -**							
1		441.11.10 Regular Employee Wages	$#,###	A	xx.x%	xx.x%	$#,###	$#,###	
2		441.13.10 Regular Employee Overtime	#,###	A	xx.x%	xx.x%	#,###	#,###	
3		441.14.20 (include all O&M account detail)	#,###	B	xx.x%	xx.x%	#,###	#,###	
4		441.32.50 Internal Services	#,###	F	xx.x%	xx.x%	#,###	#,###	
5		441.43.41 Distribution System Maint.	#,###	J [2]	0.0%	100.0%	0	(#,###)	
6		Incremental or Increased Service Level O&M	#,###	A	xx.x%	xx.x%	#,###	#,###	
7		***Total Operation and Maintenance Expenses***	**$#,###**				**$#,###**	**$#,###**	
	+	**Taxes and/or Transfer Payments**							
8		- Tax A	$#,###	G	xx.x%	xx.x%	$#,###	$#,###	
9		- Tax B	#,###	J	0.0%	100.0%	0	(#,###)	
10		- Transfer Payment 1	#,###	A	xx.x%	xx.x%	#,###	#,###	
11		**Total Taxes and Transfer Payments**	**$#,###**				**$#,###**	**$#,###**	
	+	**Debt Service Payment**							
12		- Regional Debt (P+I)	$#,###	I	100.0%	0.0%	$#,###	$0	
13		Less: Off-Sets (e.g. Cap. Facil. Tax; as appropriate)	(#,###)	I	100.0%	0.0%	(#,###)	0	
14		Less: Regional SDCs (≤ 50% of Reg. SDCs Received)	(#,###)	I	100.0%	0.0%	(#,###)	0	
15		**Net Regional Debt Funded From Rates**	**$#,###**				**$#,###**	$0	
16		- Local (Distribution) Debt (P+I)	$#,###	J	0.0%	100.0%	$0	$#,###	
17		Less: Off-Sets (e.g. 1% contribution - as appropriate)	(#,###)	J	0.0%	100.0%	0	(#,###)	
18		**Net Local (Distribution) Debt Funded From Rates**	**$#,###**				**$0**	**$#,###**	
	+	**Capital Improvements Funded From Rates**							
		- Regional Capital Improv. Funded From Rates							
19		Existing Regional Assets	$#,###	I	100.0%	0.0%	$#,###	$0	
20		New Madison Expansion	(#,###)	I	100.0%	0.0%	(#,###)	0	
21		- Local (Distribution) Cap. Improv. Funded From Rates	#,###	J	0.0%	100.0%	0	(#,###)	
22		**Total Capital Improvement Funded From Rates**	**$#,###**				**$#,###**	**$#,###**	
23	+	**Change In Working Capital**	**$#,###**	A	xx.x%	xx.x%	$#,###	$#,###	
24	+	**Other Expenses**	**#,###**	A	xx.x%	xx.x%	#,###	#,###	
25	=	**Total Water System Revenue Requirement**	**$#,###**				**$#,###**	**$#,###**	
26	–	Less: Miscellaneous Revenues	$#,###	A	xx.x%	xx.x%	#,###	#,###	
27	=	**Net Revenue Requirement**	**$#,###**				**$#,###**	**$#,###**	[3]
28		**Total Regional Sales (1,000 gallons)**					**xx,xxx,xxx**		
29		**Average Cost - Regional Water Rate ($/1,000 gallons)**					**$x.xx /1,000 gallons**		

[1] - Allocations are for illustrative purposes only. Final methods will need to be determined based upon specific costs

[2] - There will likely be some regional component of the City's distribution system for larger sized mains that are utilized by regional customers.

[3] - Final allocation to City local system is irrelevent for purposes of establishing regional rates. Local rates are established by the City of Gillette and the City may adjust their final local revenue requirement and rates to reflect their City Council's objectives and policy decisions (i.e. City may apply their local share of 1% funds to minimize local rates).

At the bottom of Table 8 the Regional allocation of costs is shown (line 27). This is the total amount of revenue that should be collected from the regional customers for that particular test

period. Lines 28 and 29 take the Regional analysis one step further and divide the total costs by total consumption to establish a per unit cost. This per unit cost is for reference purposes only. It is the average regional cost on a strict $/1,000 gallon basis (or other comparable unit of measurement). While this measure provides a good understanding of the potential cost of water (rate) for the regional system, it does not consider the various levels of service or types of customers on the regional system.

It should be noted that within this step the allocation of costs to the local system is irrelevant for the Regional rate setting process. At the local level, the City may establish local rates to reflect their local policy decisions. The only caveat agreed to between the parties is no local agency shall establish their total local rates (regional cost + local cost) at a level that is less than the total regional cost.

Step 3 – Allocate the Regional Revenue Requirement Between Regional Customers and the Various Levels of Services

The third step takes the regional revenue requirement, as developed in Step 2, and allocates that Regional revenue requirement between the various customer groups or levels of service on the Regional system. There are four sub-steps associated with the process. Shown below are the various detailed steps.

Step 3	Allocate the Regional revenue requirement between the regional customers and the various levels of service
Step 3a	Define the levels of service (e.g. full requirements, seasonal, etc.) and the "definition" of that particlar level of service. Determine whether costs will be allocated for the level of service, or adjustments made to an allocated rate (e.g. a "adder" for fire protection/reservoir capacity).
Step 3b	Develop allocation factors for the various levels of service for commodity, capacity, customer and revenue related classifications
Step 3c	Functionalize and classify plant in service and the regional revenue requirements
Step 3d	Allocate the classified regional revenue requirements to the various customer levels of service and summarize the results

As noted above, this step involves taking the Regional revenue requirement and allocating it to the various customer classes of service (levels of service) of the Regional system. Given that, the first step (3a) involves defining the classes of service. Table 9 provides an overview of the customer classes of service or levels of service for the Regional system as currently envisioned.

Table 9 – Defining the Regional Customer Classes of Service (Levels of Service)

Defining the Customer Classes of Service

Class	Level of Service	Definition of Class of Service (Level of Service)
A	Year Round Service	A "full requirements" customer
B	Seasonal Service	Provided seasonal service for "peak" or "off-peak" months. A customer may also receive service in the "off-peak" period, but for purposes of pricing will still be considered a "peak" season customer
C	Emergency and Fire Flow Service	A customer that is connected but may use infrequent service to meet emergency service or fire flow requirements
D	Buy-Sell Service	A customer that has their own resource and may sell water to the Regional system (net metering arrangement). The arrangement to sell water to the regional system, along with the price or value of water sold to the regional system will need to be determined seperately. Customer must be "qualified" to place water into the regional system and may be subject to various other restrictions on the sale of water to the regional system
E	Special or Additional Services	As may be defined or needed

These customer classes of service were developed based upon discussions with potential regional customers. In establishing the classes of service, the intent was to recognize and acknowledge that regional customers may utilize the system in different ways, depending upon the facilities required to serve them and their sources of supply. In establishing these customer classes of service, consideration was given to creating a number of classes of service that would be administratively manageable. An overview of the classes of service is as follows:

- **Year-Round Service:** A customer that requires monthly service, which may include full or partial water supply requirements. This class of service should be clearly defined to avoid a customer that more closely resembles "peak season" service taking very minimal service in the off-peak months to obtain a more favorable rate from year-round service. This may be defined as a minimum percentage of total water supply (e.g. ≥ 50% of total water supply) or by a peaking factor approach (average day to peak day use [peaking factor] shall be less than x.xx).
- **Peak Season Service:** This class of service is intended for the customer that has sufficient supplies in the off-peak period, but is constrained in the summer period. The peak period will need to be clearly defined and whether deliveries will be made outside of that "peak season" window. It has been noted that some customers may take limited service in the off-peak months. Whether customers will take service in this manner will need to be determined, which may imply an "Off-Peak Season Service." Pricing for Peak Season service will be at a rate which is greater than Year-Round service to reflect the higher peak factor for this group of customers.
- **Emergency and Fire Flow Service:** This is for "standby service" and the allocation of costs should reflect the standby nature, or "reserved capacity" of this class of customer. The rate may be a monthly fixed charge for the standby nature and a commodity charge for any water consumed.

- **Buy-Sell Service:** This is a class of service that a customer may qualify for under very strict conditions. At least at this point, it doesn't seem likely that the Regional System would buy water from another regional customer. If a customer should enter into a buy-sell service agreement, it is proposed that this be a net billing arrangement (i.e. 1 gallon bought; 1 gallon sold back = $0 net billing). There may be additional administrative or billing costs associated with this type of customer above and beyond the net billing cost for the value of water.

As needed, the regional system may define other customer classes of service. The intent of customer classes of service is to create classes of service which balance the need for rates which reflect an equitable allocation of costs with administrative ease.

Step 3b is the development of the allocation factors for the Regional cost of service. The basic classifications of costs for the Regional system, for which allocation factors will be developed, are defined as follows:

- **Commodity Costs**: Commodity costs vary with the total quantity of water consumed by a customer, such as chemicals or electricity used in the treatment of water. Commodity costs are typically those incurred under average load conditions and generally specified to a period of time such as a month or year.
- **Capacity Costs**: Capacity costs vary with peak demand, or the maximum rates of flow to customers. That is, a larger system capacity is required when there are large demands placed upon the system (e.g., summer lawn watering).
- **Customer Related Costs**: Customer costs vary with the number of customers on the water system rather than system output or consumption levels. These costs are further broken down into actual or weighted customer costs.
  - ✓ "Actual" customer costs vary proportionally with the addition or deletion of customers, regardless of the meter size or amount of water a customer uses.
  - ✓ "Weighted" customer costs do not vary proportionally with the addition or deletion of customers. For example, costs of meter maintenance, where larger meters may have a greater cost than smaller meters.
- **Revenue Related Costs**: There may be costs that vary with the amount of revenue received, and is not a function of volume of water used or capacity use.
- **Direct Assignments**: Certain costs associated with operating the system may be directly traced to a specific customer or level of service and, therefore, are directly assigned to that specific level of service.

These basic cost classifiers should be used to begin the cost of service for the regional system. The cost of service and allocation of costs should not be constrained by the above definitions. If additional cost classifiers are needed to equitably allocate costs, then they should be added to the regional cost allocation model.

Each of the cost classifications (i.e. commodity, capacity, etc.) needs an allocation factor to equitably allocate the classified cost to the various levels of service. Table 10 provides an overview of the commodity and capacity allocation factors.

Table 10: Development of the Commodity and Capacity Allocation Factor

1. *Commodity Allocation Factor -*

Class	Customer Description	Annual Sales (1,000 gal.)	Regional Losses (%) [1]	Total Requirements (1,000 gal.)	% of Total
A	Year Round Service	xxx,xxx,xxx	x.xx%	xxx,xxx,xxx	**xx.x%**
B	Peak Season Service	xx,xxx,xxx	x.xx%	xx,xxx,xxx	**xx.x%**
C	Emergency and Fire Flow Service	x,xxx,xxx	x.xx%	x,xxx,xxx	**xx.x%**
D	Buy-Sell Service [2]	xxx,xxx	x.xx%	xxx,xxx	**xx.x%**
E	Open (if needed)	xx,xxx	x.xx%	xx,xxx	**xx.x%**
	Total	xxx,xxx,xxx		xxx,xxx,xxx	**100.0%**
	Allocation Factor				**(COMM)**

[1] - Regional losses need to be determined; losses should likely be equal % across all customer types.

[2] - Assumes net metering in which customer's water is purchased at regional cost of water (i.e. Regional billing is net of local delivery to regional system).

2. *Capacity Allocation Factor*

Class	Customer Class	Annual Sales (1,000 gal.)	Ave. Day Demand in MGD [1]	Peaking Factor [2]	Peak Day Demand in MGD [3]	% of Total
A	Year Round Service	xxx,xxx,xxx	xx.xx	1.60	xx.xx	**xx.x%**
B	Peak Season Service [4]	xx,xxx,xxx	xx.xx	2.50	xx.xx	**xx.x%**
C	Emergency and Fire Flow Service	x,xxx,xxx	x.xx	2.20	x.xx [4]	**xx.x%**
D	Buy-Sell Service	xxx,xxx	x.xx	1.85	x.xx	**xx.x%**
E	Open (if needed)	xx,xxx	x.xx	0.00	x.xx	**xx.x%**
	Total	xxx,xxx,xxx	xx.xx		xx.xx	**100.0%**
	Allocation Factor					**(CAP)**

[1] - MGD = Millions of gallons per day. Formula for average day demand in MGD = Annual Sales (1,000 gallons) x 1,000, divided by 365 (days), divided by 1,000,000

[2] - Peaking factors are the relationship between peak day demand and average day demand. Peaking factors in this exhibit are for illustrative purposes only.

[3] - Either an actual metered amount (i.e. on the peak day of July 14th, the metered demand for the full requirement customers was xx.xx. If actual metered data is not available, the peaking factor is estimated (e.g. peak month / average month = monthly peaking factor) and the average day demand in MGD is multiplied by the estimated peaking factor to determine the peak day demand.

[4] - Allocation may reflect "stand-by" or "reserved" capacity (i.e. potential to peak)

As can be seen, the allocation factors attempt to allocate the specific cost in a manner that equitably allocates the cost. Therefore, commodity or flow-related costs are allocated on the basis of the total annual flow requirements of each customer class of service. For the capacity allocation factor, peak day contributions are utilized.

The next allocation factors developed are the customer and revenue-related allocation factors. Table 11 provides an overview of their development.

Table 11: Development of the Customer and Revenue Related Allocation Factor

3. Customer Allocation Factor

		Actual Customer [1]		Weighted Customers		
Class	Customer Class	Number of Meters	% of Total	Weighting Factor [1]	Weighted Customers	% of Total
A	Year Round Service	xxx	**xx.x%**	1.0	xxx	**xx.x%**
B	Peak Season Service	xx	**xx.x%**	1.5	xx	**xx.x%**
C	Emergency and Fire Flow Service	xx	**xx.x%**	1.8	xx	**xx.x%**
D	Buy-Sell Service	xx	**xx.x%**	3.0	xx	**xx.x%**
E	Open (if needed)	x	**xx.x%**	5.0	x	**xx.x%**
	Total	xxx	**100.0%**		xxx	**100.0%**
	Allocation Factor		**(AC)**			**(WC)**

[1] - Actual customer allocation factor is used to allocate customer related costs that are not disproportionate (i.e. postage for mailing bills is the same cost per customer, regardless of the size or usage of the customer).

[2] - Weighted customer allocation factor is used to allocate customer related costs that are disproportionate (e.g. billing or customer services) and the weighted factor should take this disproportionality into account. Weighting factors used in this example are for illustrative purposes only. Number of actual customers multiplied by the weighting factor = weighted customers.

4. Revenue-Related Allocation Factor

Class	Customer Class	Total Rate Revenue [1]	% of Total
A	Year Round Service	$x,xxx,xxx	**xx.x%**
B	Peak Season Service	xxx,xxx	**xx.x%**
C	Emergency and Fire Flow Service	xxx,xxx	**xx.x%**
D	Buy-Sell Service	xxx,xxx	**xx.x%**
E	Open (if needed)	xxx,xxx	**xx.x%**
	Total	$xx,xxx,xxx	**100.0%**
	Allocation Factor		**(REV)**

[1] - Regional revenue only

The customer allocation factor is based upon the number of regional meters, not on the number of meters at the local level or equivalent meters beyond the regional meter. The development of the weighting factors are judgmental and will require some analysis to determine whether there are differing levels of effort required to provide customer accounting or other customer related services that are "weighted" to attempt to take into account the disproportionate cost levels.

Step 3c involves the classification of regional plant in service. Plant in service is used to classify certain portions of the Regional revenue requirement. The first step of this portion of the analysis is to determine the portion of plant in service that is related to the Regional system. It is presumed that the regional system includes all source of supply, the regional treatment and transmission pipelines. Table 12 provides the analytical framework for this analysis.

Table 12: Classification of Plant in Service

Gillette Regional Water Rate Calculations

Step 3 Allocation of the Regional Costs to the Various Regional Customer Classes of Service

Step 3c - Classification of the Plant in Service

Concepts: • Allocate total plant in service between regional and local
• Classify regional plant to various cost components

Line No.	Account Description	Total Plant in Service	Allocation Method [1]	Regional Allocation	Total Regional Plant in Service	Commodity	Capacity	Actual Customer	Weighted Customer	Revenue Related	Direct Assign.[6]	Basis of Classification
	+ **Intagible Plant**											
1	Orgainization, Franchises and Consents	$#,###	B	xx.x%	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	As All Other Plant
2	**Total Intangible Plant**	**$#,###**			**$#,###**	**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	+ **Source of Supply Plant**											
3	Existing Madison Wellfield	$#,###	I	100.0%	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	x.x% COM; x.x% CAP
4	New Madison Wellfield	#,###	I	100.0%	#,###	#,###	#,###	0	0	0	0	% classification based
5	Existing City Wells	#,###	I	100.0%	#,###	#,###	#,###	0	0	0	0	upon the relationship
6	Future City Wells	#,###	I	100.0%	#,###	#,###	#,###	0	0	0	0	of the system average
7	Other Source of Supply Facilities	#,###	I	100.0%	#,###	#,###	#,###	0	0	0	0	day use to peak day use
8	**Total Source of Supply Plant**	**$#,###**			**$#,###**	**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	+ **Pumping Plant**											
9	Regional Pumping Facilities	$#,###	I	100.0%	$#,###	$ 0	$#,###	$ 0	$ 0	$ 0	$ 0	100% CAP
10	Local Pumping Facilities	#,###	H	0.0%	0	0	#,###	0	0	0	0	Sized for capacity
11	Other Misc. Pumping Plant	#,###	As Other Pumps	xx.x%	#,###	0	#,###	0	0	0	0	
12	**Total Pumping Plant**	**$#,###**			**$#,###**	$ 0	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	+ **Treatment Plant**											
13	Existing Treatment Plant	$#,###	I	100.0%	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	x.x% COM; x.x% CAP
14	Future Treatment	#,###	I	100.0%	#,###	#,###	#,###	0	0	0	0	Same as SofS Plant
15	Other Treatment Related Facilities	#,###	I	100.0%	#,###	#,###	#,###	0	0	0	0	
16	**Total Treatment Plant**	**$#,###**			**$#,###**	**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	+ **Transmission Plant**											
17	Existing Madison Pipeline (includes existing storage)	$#,###	I	100.0%	$#,###	$ 0	$#,###	$ 0	$ 0	$ 0	$ 0	100% CAP
18	New Madison Pipeline (includes new storage)	#,###	I	100.0%	#,###	0	#,###	0	0	0	0	Trans. Sized for capacity
19	Other Transmission Plant	#,###	I	100.0%	#,###	0	#,###	0	0	0	0	needs
20	**Total Transmission Plant**	**$#,###**			**$#,###**	$ 0	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	+ **Distribution Plant**											
21	Distribution Reservoirs [2]	$#,###	H	0.0%	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	
22	Distribution Mains [3]	#,###	Main Analysis	xx.x%	#,###	0	#,###	0	0	0	0	May be some component
23	Hydrants	#,###	H	0.0%	0	0	0	0	0	0	0	of regional trans. in local
24	Meters and Services [4]	#,###	H	0.0%	0	0	0	0	0	0	0	distribution - larger
25	Other Miscellaneous Distribution Plant	#,###	As Dist. Plant	0.0%	0	0	0	0	0	0	0	mains
26	**Total Distribution Plant**	**$#,###**			**$#,###**	$ 0	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	Total Plant Before General Plant	**$#,###**			**$#,###**	**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	% of Total Plant Before General Plant (Plant Factor 1)				100.0%	xx.x%	xx.x%	0.0%	0.0%	0.0%	0.0%	(Plant Factor 1)
	+ **General Plant**											
	General Plant	#,###	As Plant Fact. 1	xx.x%	#,###	#,###	#,###	0	0	0	0	As Plant Factor 1
	Total General Plant	**$#,###**			**$#,###**	**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	Total Plant in Service (Original Cost)	**$#,###**			**$#,###**							
	Less: Accumulated Depreciation (5)											
	Intangible Plant	($#,###)	As Intangible Plant		($#,###)	($#,###)	($#,###)	$ 0	$ 0	$ 0	$ 0	As Intangible Plant
	Source of Supply Plant	(#,###)	As Source of Supply Plant		(#,###)	(#,###)	(#,###)	0	0	0	0	As Source of Supply Plt
	Pumping Plant	(#,###)	As Pumping Plant		(#,###)	0	(#,###)	0	0	0	0	As Pumping Plant
	Treatment Plant	(#,###)	As Treatment Plant		(#,###)	(#,###)	(#,###)	0	0	0	0	As Treatment Plant
	Transmission Plant	(#,###)	As Transmission Plant		(#,###)	0	(#,###)	0	0	0	0	As Transmission Plant
	Distribution Plant	(#,###)	As Distribution Plant		(#,###)	0	(#,###)	0	0	0	0	As Distribution Plant
	General Plant	(#,###)	As General Plant		(#,###)	(#,###)	(#,###)	0	0	0	0	As General Plant
	Total Accumulated Depreciation	**($#,###)**			**($#,###)**	**($#,###)**	**($#,###)**	$ 0	$ 0	$ 0	$ 0	
	Total Net Plant in Service (OC - AD) [7]	**$#,###**			**$#,###**	**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	% of Total Net Plant In Service				100.0%	xx.x%	xx.x%	0.0%	0.0%	0.0%	0.0%	(Plant Factor 2)

[1] - Allocations are for illustrative purposes only. Final methods will need to be determined based upon specific costs
[2] - Distribution reservoirs are the local in-City reservoirs and not the source of supply reservoirs. Some regional customers may benefit from these reservoirs.
[3] - There may be a minor component of in-City distribution mains that are transmission related and benefit regional customers. A distribution main analysis will be required to determine appropriate share.
[4] - It is assumed that these are in-City meters and services. Regional customer meters and services are presumed to be included in the transmission facilities.
[5] - Accumulated depreciaton is generally classified in the same manner as the corresponding original plant in service.
[6] - There may be certain facilities that may be "directly assigned." That is, the facilities can be indentifed to a specific customer or group of customers.
[7] - Contributions in aid of construction or working capital are not included since a "cash basis" methodology is being used, not a return on investment methodology which would consider those components.

In assigning the costs between regional and local, all source of supply, treatment and transmission facilities are 100% regional. Source of supply includes the City's entire existing source of supply facilities, including wells. Within Table 11, it is presumed that local distribution costs are "local." However, a certain portion of "distribution" mains may serve potential Regional customers that are served via the City's local distribution system. The same situation may be true for customers that do not have sufficient reservoir storage and utilize the City's distribution reservoirs for storage capacity.

The classification of plant in service is based upon the AWWA cost of service principles. The classifications shown in Table 11 are based upon the assumptions at the current time. These may change over time depending upon the detail of the plant data (accounts) and the operation/use of the plant facilities.

Costs are classified between commodity and capacity-related costs (e.g. source of supply plant) are based upon the Regional system's average day and maximum day demand. For example, if the average day demand is 6 MGD and the peak day demand is 10 MGD, then the classification would be 60% to commodity (AD) and 40% to capacity (PD). This approach is more of an "operational" perspective and patterned after the base/extra-capacity method.

Once the plant in service has been classified, the next step is to classify the Regional revenue requirements. The regional revenue requirements were previously developed in Step 2. An overview of the classification of the Regional revenue requirements are shown below in Table 13.

Table 13: Classification of the Regional Revenue Requirements

Gillette Regional Water Rate Calculations

Step 3 Allocation of the Regional Costs to the Various Regional Customer Classes of Service

Step 3c - Classification of the Regional Expenses (Regional Revenue Requirement)

Concepts:
- Regional share of costs are classifed to cost components
- Split between commodity and capacity is based upon system average day to peak day relationship
- Classifications are for example only, final classifications will depend upon the chart of accounts and level of detail

Line No.	Description	Regional Share	Commodity	Capacity	Actual Customer	Weighted Customer	Revenue Related	Direct Assign.[6]	Basis of Classification
	+ Operation and Maintenance Expenses - [1]								
1	441.11.10 Regular Employee Wages	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	As Plant Factor 2
2	441.13.10 Regular Employee Overtime	#,###	#,###	#,###	0	0	0	0	As Plant Factor 2
3	441.14.20 (include all O&M account detail)	#,###	#,###	#,###	0	0	0	0	As Plant Factor 2
4	441.32.50 Internal Services	#,###	0	0	0	#,###	0	0	100% WC
5	Regional Customer Service/Cust. Accting	#,###	0	0	0	#,###	0	0	100% WC
6	441.43.41 Distribution System Maint.	#,###	#,###	#,###	0	0	0	0	As Distribution Plant
7	Electrictity or Chemicals	#,###	#,###	0	0	0	0	0	100% COM
8	Incremental or Increased Service Level O&M	#,###	#,###	#,###	0	0	0	0	As Plant Factor 2
9	***Total Operation and Maintenance Expenses***	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$#,###**	**$ 0**	**$ 0**	
	+ Taxes and/or Transfer Payments								
10	- Tax A	$#,###	$ 0	$ 0	$ 0	$ 0	$#,###	$ 0	Specific taxes will
11	- Tax B	#,###	#,###	#,###	0	0	0	0	need to be analyzed
12	- Transfer Payment 1	#,###	0	0	0	0	#,###	0	
13	**Total Taxes and Transfer Payments**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$ 0**	**$#,###**	**$ 0**	
	+ Debt Service Payment								
14	- Regional Debt (P+I)	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	As Plant Factor 2
15	Less: Off-Sets (e.g. Cap. Facil. Tax; as appropriate)	(#,###)	(#,###)	(#,###)	0	0	0	0	As Regional Debt
16	Less: Regional SDCs (≤ 50% of Reg. SDCs Received)	(#,###)	(#,###)	(#,###)	0	0	0	0	As Regional Debt
16	**Net Regional Debt Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	
16	- Local (Distribution) Debt (P+I)	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	
17	Less: Off-Sets (e.g. 1% contribution - as appropriate)	0	0	0	0	0	0	0	
18	**Net Local (Distribution) Debt Funded From Rates**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	
	+ Capital Improvements Funded From Rates								
	- Regional Capital Improv. Funded From Rates								
19	Existing Regional Assets	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	As Plant Factor 2
20	New Madison Expansion	(#,###)	(#,###)	(#,###)	0	0	0	0	As Plant Factor 2
21	- Local (Distribution) Cap. Improv. Funded From Rates	#,###	(#,###)	(#,###)	0	0	0	0	As Plant Factor 2
22	**Total Capital Improvement Funded From Rates**	**$#,###**	**$ 0**	**$#,###**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	
23	**+ Change In Working Capital**	**$#,###**	**$ 0**	**$ 0**	**$ 0**	**$ 0**	**$#,###**	**$ 0**	100% RR
24	**+ Other Expenses**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$#,###**	**$#,###**	**$ 0**	As O&M Expenses
25	**= Total Water System Revenue Requirement**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$ 0**	**$#,###**	**$ 0**	
26	– Less: Miscellaneous Revenues	$#,###	$#,###	$#,###	$ 0	$ 0	$#,###	$ 0	As Tot. Rev. Requir.
27	**= Net Revenue Requirement (Regional)**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$ 0**	**$#,###**	**$ 0**	May be some component

[1] - Note: The City's chart of accounts may change or be modified in the future to better capture and segregate regional and local costs

Note: AWWA M-1 Manual, Principle of Water Rates, Fees and Charges, Fifth Edition

The classifications shown in Table 13 are based upon the concepts of attempting to classify costs in a manner that reflects the reason why the costs were incurred (e.g. to meet a commodity-related need, capacity-related need, etc.). The classifications should be routinely reviewed and modified to create equitable allocations.

The bottom line (Line 27) is the total Regional revenue requirement classified between the various cost classifiers. It is these amounts that will be allocated to the various Regional customer classes of service. Table 14 provides the framework for the allocation of the Regional revenue requirements to the various Regional customer classes of service.

Table 14: Allocation of the Regional Revenue Requirements

Gillette Regional Water Rate Calculations

Step 3 Allocation of the Regional Costs to the Various Regional Customer Classes of Service

Step 3d - Allocate the Classified Regional Expenses Using the Allocation Factors and Summarize the Analysis

Concepts: • Allocate the classified regional revenue requirement
• Summarize the regional cost of service

Allocation of the Regional Revenue Requirement -

Line No.	Cost Components	Total Net Regional Expenses [1]	Year Round Service	Peak Season Service	Emergency and Fire Flow Service	Buy-Sell Service	Other (As Needed)	Allocation Factor
1	Commodity Related	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	COMM
2	Capacity Related	#,###	#,###	#,###	#,###	#,###	#,###	CAP
3	Actual Customer Related	#,###	#,###	#,###	#,###	#,###	#,###	AC
4	Weighted Custome Related	#,###	#,###	#,###	#,###	#,###	#,###	WC
5	Revenue Related	#,###	#,###	#,###	#,###	#,###	#,###	REV
6	Direct Assignment	#,###	#,###	#,###	#,###	#,###	#,###	Direct [2]
7	**Total Net Regional Revenue Requir.**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	

[1] - Column carried forward from bottom line of Step 3c (Line 27); classification of the regional expenses.
[2] - Costs that are directly assigned are not allocated, but assigned directly to a particular customer class of service.

The classified costs are allocated to the regional customer classes of service using the regional allocation factors (Step 3b). Once the net revenue requirements have been classified, the final step is to develop the summary table. Table 15 is the summary table for the Regional cost of service.

Table 15: Summary of the Regional Cost of Service Analysis

Summary of the Regional Cost of Service Analysis -

Line No.	Description	Total	Year Round Service	Peak Season Service	Emergency and Fire Flow Service	Buy-Sell Service	Other (As Needed)	
1	Total Rate Revenue at Existing Regional Rates	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	
2	Less: Allocated Net Regional Revenue Requir.	#,###	#,###	#,###	#,###	#,###	#,###	L. 7 of allocation above
3	Balance or (Deficiency) of Funds	$#,###	$#,###	($#,###)	$#,###	($#,###)	$#,###	L. 1 - L. 2
4	Bal./(Defic.) of Funds as a % of Rate Revenue	x.x%	x.x%	(x.x%)	x.x%	(x.x%)	x.x%	L. 3 / L. 1

The summary table provides a comparison between the existing rate levels and the allocated cost of service. The cost of service provides an understanding of the cost associated with serving the various customer classes of service.

The final step of the cost of service analysis is the development of the average unit costs. Average unit costs are "cost-based" rates prior to any policy considerations. Table 15 provides an overview of the format and approach for the development of average unit costs.

Table 16: Development of the Regional Average Unit Costs

Gillette Regional Water Rate Calculations

Step 4 Determine Average Unit Costs

Step 4a - Utilize the classified and allocated costs to determine the average unit costs (cost-based rates)

Concepts: • Utilize the allocated cost components (Step 3d) and determine a per unit cost for each cost component
• Classified cost divided by appropriate billing unit = per unit cost

Calculation of the Average Unit Costs [1]

Line No.	Cost Components	Total Net Regional Expenses	Year Round Service	Peak Season Service	Emergency and Fire Flow Service	Buy-Sell Service	Other (As Needed)	Reference
1	Commodity Related	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	Step 3d, L.1
2	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 1 / L. 16
3	Capacity Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3d, L.2
4	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 3 / L. 16
5	Actual Customer Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3d, L.3
6	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 5 / L. 16
7	$/Customer/Month	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 5 / L. 17 / 12
8	Weighted Custome Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3d, L.4
9	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 8 / L. 16
10	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 8 / L. 17 / 12
11	Revenue Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3d, L.5
12	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 11 / L. 16
13	Direct Assignment	#,###	#,###	#,###	#,###	#,###	#,###	Step 3d, L.6
14	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 13 / L. 16
	Total Net Regional Revenue Requir.	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Step 3d, L.7
15	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 13 / L. 15
	Basic Data							
16	Volumetric Sales - 1,000 gallons	#,###,###	#,###,###	#,###,###	#,###,###	#,###,###	--	Metered Sales
17	**# of Metered Customers**	###	###	###	##	##	--	

[1] - Average unit costs provide a cost-basis for final rate designs. Final rate designs may consider, as deemed appropriate, a fixed charge, variable charge, minimum charge or other generally accepted rate structure components.

The average unit cost analysis places the revenue requirement in the context of a rate design. That is the costs are placed in the context of $/customer/month and $/1,000 gallons. While certain costs have been stated in the context of $/customer/month or $/1,000 gallons, the final step, Step 4, uses this information to design final proposed rate designs.

Step 4 – Development of the Final Proposed Rate Designs

The final step takes the analyses previously developed and establishes final proposed rate designs for the various regional customer groups. Shown below is an overview of the final step.

Step 4	Develop Unit Costs/Rate Designs for the Various Levels of Regional Service
Step 4a	For each customer level of service, divide the classified regional revenue requirements by the billing units (e.g. volume sale, number of customers, etc.) to determine the average unit cost for that particular level of service.

While the cost of service has developed a simplified rate design within the average unit cost analysis, the final step is to design final rates. The final rate designs may consider a number of different items (e.g. revenue stability, ease of administration, promote efficient use, etc.) and may use different rate structures to achieve them (e.g. fixed meter charges, commodity charges, minimum charges, stand-by charges, etc.). Among the potential rate structures for each class of service are the following:

Year-Round Service – A fixed meter charge that varies by the safe-operating capacity of the meter[5] and a commodity (consumption) charge that is uniform in structure. A minimum charge may be appropriate for customers that are not 100% full requirement customers.

Peak-Season Service – Similar to Year-Round Service, the rate would contain a fixed meter charge and a commodity charge. The commodity charge should be greater than the Year-Round commodity charge to reflect the seasonal nature of this service. Consideration may be given to a minimum charge during the peak season, and potentially a lower minimum charge during the off-peak season to reflect the fixed costs associated with the Regional system that are still incurred during the off-peak season. There may also be a charge for any water consumed in the off-peak season.

Emergency and Fire Flow Services – There should likely be at least two elements to this rate. First, there should be a stand-by charge to reflect the reserved capacity of these customers. The commodity charge would likely be one of the highest rates on the system. As an emergency or fire-flow service, the customer will likely use little or no water. If a customer needs water on a more routine basis, they should be moved to another class of service and not be placed on this schedule and then allowed to purchase water on a routine basis.

Buy-Sell Service – It is unclear whether any customers will be interested or even qualify to place water in the regional system. It is presumed that any sales will be a "net billing" arrangement. The structure of the rate design may be similar to the Year-Round rate structure.

Summary

The over-arching intent in establishing this methodology to for the Regional Water System is to establish fair and cost-based rates at the Regional level.

5 See Table 28-2 in the AWWA M-1 Manual, Fifth Edition, for Safe Maximum Operating Flow in gpm.

EXHIBIT F

Gillette Regional Water Supply Project
Water System Development Charge (SDC) Methodology

Introduction

The City of Gillette owns and operates a regional water supply, treatment and transmission system. The development of Regional water system development charges is a method used to create equity between existing regional wholesale customers and future connecting customers, or those regional wholesale customers expanding their supply needs.

The policies presented herein are expressly for application to the regional wholesale supply system and are not necessarily applicable to the distribution system of the City of Gillette, however, this does not prohibit the City of Gillette from implementing these policies for its distribution system, if it so chooses.

Overview of System Development Charges

The Regional Financial and Rate Setting Policies provide for the development of system development charges. Section 1.2 of the Regional policies provides for the following:

> "SYSTEM DEVELOPMENT CHARGE POLICIES:
> System Development Charges (SDCs) are intended to reflect the cost of growth and capacity expansion to serve new customers and additional capacity requirements. System Development Charges are a common method of assessing the cost of growth and expansion to new customers or those existing customers requesting expansion of their capacity requirements."

Overview of the Regional System Development Charges

All customers initially connecting to the Regional water system will not be required to pay regional system development charges. At some later date, the Regional system may establish regional system development charges. The purpose of the Regional SDCs is to achieve the following objectives:

- Have new development pay their own way, or "buy into" available capacity
- Equitably recover capital costs from current and future customers
- Minimize debt costs and growth-related capital costs on the regional system (i.e. minimize rate impacts)

System development charges address the issue of timing or connection to the system. For example, if the regional system issues a bond with a 20-year term (repayment period), the customer that connects in Year 1 will pay for the debt service associated with their capacity use, along with a proportional share of the debt service associated with any excess capacity in the

system. Assuming a customer wants to connect to the system in Year 10, the existing customers will have paid half of the debt service, along with the debt service associated with the excess capacity that is now being made available to the new customer. When the new customer connects, a system development charge should consider the "value" of that capacity and reimburse the existing customers for the investment made to carry that excess or available capacity. The SDC may also consider other future expansion projects.

The American Water Works Association M-1 Manual describes two methods; the equity (buy-in) method and the incremental cost method[1]. These methods are described as follows:

> "**Equity (Buy-In) Method** – The goal of the equity method is to achieve an equity position between new and existing customers of the system. The method assumes that existing customers have provided equity in the existing system and that built-up equity should accrue to benefit existing customers. Under the equity method, the base level of the SDC is established at the current level of system equity related to the capacity used to serve an existing equivalent residential customer. This approach is most appropriate where no new significant system investment is anticipated and where existing facilities are not scheduled for replacement in the near future.[2]"
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> "**Incremental Method** – The incremental cost method assigns to new development the incremental cost of system expansion needed to serve the new development. The financial objective is to provide system expansion to serve new development without an undue impact on existing user rates. Generally, this method is considered most appropriate when a significant portion of the capacity required to serve new customers must be provided by the construction of new facilities.[3]"

Given that overview of the methods, certain decisions will need to be made concerning the Regional SDC.

Selection of the Regional Method - Given the development of the Madison project, excess capacity will likely be available for many years. Given that, if the Regional Water Supply System establishes a Regional system development charge, it will most likely be based upon the equity method.

Debt Service Credit - Given the financing of the Regional project, the calculation of the SDC must contain a debt service credit. This component of the SDC methodology helps to assure that regional customers do not pay for debt service twice; once within the SDC and then again within the Regional rates.

Legal Considerations – In the establishment of the Regional SDC, any legal considerations or requirements must be taken into account in both calculating the Regional SDC and in the administration of the SDC and the use of the proceeds. At the present time, there is no specific Wyoming state legislation as it relates to the calculation or establishment of SDCs.

Assessment of the SDCs – Generally, SDCs are assessed on the basis of meter capacity[4]. The

1 AWWA M-1 Manual, Fifth Edition, Chapter 28.
2 Ibid. p. 201.
3 Ibid. p. 202.
4 Ibid. See Table 28-2, p. 202.

SDC analysis will determine the value of an equivalent residential unit, which is generally defined as 5/8" meter, 5/8" x 3/4" meter or a 3/4" meter. The Regional Financial Policies state that the Regional system will be viewed as a unified system and Regional SDCs will be assessed in a uniform manner for the Regional components. SDCs may also be assessed against an existing customer that expands their capacity needs, either through the up-sizing of an existing meter or via a new delivery point.

Adoption of SDCs – Adopting and implementation of full-cost (calculated) SDC implies that growth is paying 100% of its costs. The regional water system may adopt and implement SDC which are less than the full calculated cost, but they may not adopt nor implement SDCs which are greater than the calculated SDC. Adopting Regional SDCs which are less than the full calculated cost implies some sharing of the cost of growth between the existing Regional customers and the new customer connecting to the system.

Accounting For and Use of Regional SDCs – The Regional Financial and Rate Setting Policies are clear about the accounting and use of Regional SDCs. The Regional Water Rate Methodology established a reserve fund for the Regional SDCs. All Regional SDCs received shall be placed within this SDC reserve. The use of Regional SDCs is specifically limited to paying for Regional growth-related debt service and Regional growth-related capital improvement projects. Renewal and replacement of existing facilities (i.e. replacements that provide no new capacity) shall not use SDCs as a funding source. A renewal and replacement project that replaces an existing facility, but at the same time provides expanded capacity is eligible for SDC funding for that portion of the cost of the project that provides expanded capacity.

Summary

The establishment of Regional System Development Charges is intended to provide a method to create equity between existing customers and new customers connecting to the Regional water system. Regional SDCs are not required (mandatory), but may be an important mechanism or tool for the Regional water system to deal with costs associated with existing and future system capacity. The establishment of any Regional SDC shall utilize generally accepted water system development charge methodologies.