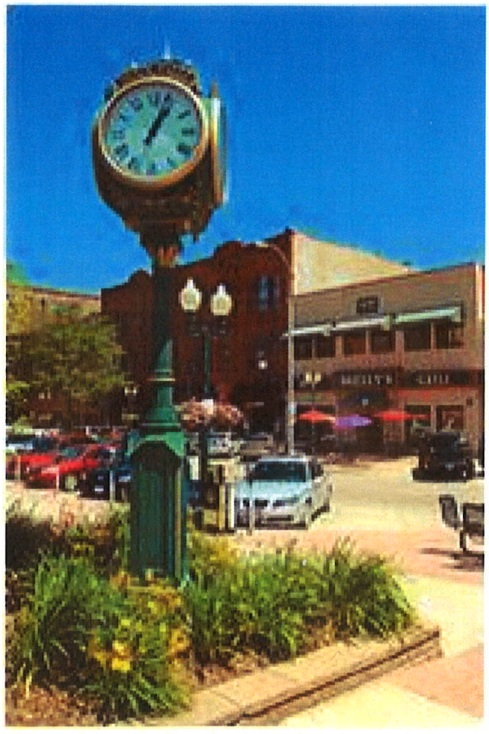
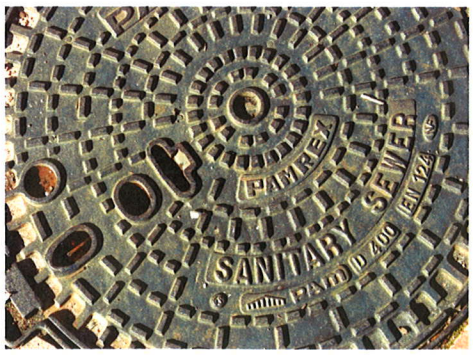
Final Report

City of Sioux Falls

Wastewater Regionalization Study
Volume 1 – Regional Wastewater Rates

July 2013





Prepared by:

HDR Engineering, Inc.

HDR ONE COMPANY | *Many Solutions*

July 11, 2013

Mr. Trent Lubbers
Wastewater Superintendent
224 W. 9th Street
Sioux Falls, SD 57104

Subject: Comprehensive Regional Wastewater Rate Study

Dear Mr. Lubbers:

HDR Engineering, Inc. (HDR) is pleased to present the final report on the comprehensive regional wastewater rate study conducted for the City of Sioux Falls (City). The City of Sioux Falls is exploring the issue of regionalization of their wastewater system. This study summarizes the various activities undertaken in relation to the review of the feasibility of regionalization. A key objective in developing the City's comprehensive regional wastewater rate study was to determine a methodology that may be used to establish regional wastewater rates which are fair and equitable to both the City's customers and the other outside City regional customers. This report outlines the approach, methodology, and findings of our wastewater regionalization rate study.

This report was developed utilizing the City's accounting, operating and management records. HDR has relied upon this cost and planning information to develop our analyses that form our findings and conclusions. At the same time, this study was developed utilizing generally accepted wastewater rate setting principles, which were then tailored to the specific and unique circumstances of the City's potential regional system. This report provides the basis for the City to evaluate the concept of regionalization and be able to make informed decisions concerning regionalization.

We appreciate the assistance provided by City staff in the development of this study. More importantly, we appreciate working with City of Sioux Fall's management, staff and City Council on this project.

Sincerely yours,
HDR Engineering, Inc.

J. Mike Coleman, P.E.
Project Manager

Tom Gould
Vice President and National
National Technical Director
of Finance and Rates

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Introduction

The City of Sioux Falls (City) retained HDR Engineering, Inc. (HDR) to perform a comprehensive regional wastewater study to determine the feasibility of providing regional wastewater service to local outlying communities and to determine the key policy and analytical mechanisms needed in order to effectively provide regional wastewater service. Regionalization is not a "new" concept for the City's wastewater system. The City currently has agreements with other jurisdictions to provide wastewater services. The most recent agreement with the City of Harrisburg raised the important question of regionalization as a concept, but also whether the City's current approach was equitable to the City's existing customers and the new customers connecting to the wastewater system. To help address that question, a comprehensive analysis of regionalization was undertaken with a focus on regional wastewater rates. In addition, HDR also reviewed the City's existing cost recovery fees and the potential establishment of regional system development charges (SDCs).

The City recognizes there is an opportunity to be a "good neighbor" and assist other communities in addressing the ever increasing water quality treatment requirements of the Clean Water Act. At the same time, the City's wastewater system has near term treatment capacity available. The City recognizes that regional wastewater services could lead to logical development in the Sioux Falls planning area, while providing potential benefits for itself and surrounding communities from better "economies of scale" and improved water quality and resource management enhancements that comes from regional cooperation. Complexity of the regulatory environment is challenging for all parties, but particularly for smaller systems.

Establish Guiding Regional Principles and Financial Policies

The City, with assistance from HDR, reviewed a number of guiding principles for regionalization and used them to develop the general approach for establishing regional wastewater rates and system development charges. At the same time, financial policies were developed to provide the framework for the development of regional rate methodology and system development charges. In establishing a regional system it is imperative that a rate-setting framework be established in order for all regional customers to understand the approach and methodology that will be used by the City to establish regional rates and system development charges on a fair and equitable basis. The foundation of successful regional systems is treating all parties (owners and regional customers) in a fair, equitable and transparent manner, particularly as it relates to the rate setting process.

"The foundation of successful regional systems is treating all parties (owners and regional customers) in a fair, equitable and transparent manner, particularly as it relates to the rate setting process."

Some of the more important and prominent principles and policies related to the establishment of a regional wastewater system are as follows:

- The City owns and operates the regional wastewater system. Local collection systems are owned and operated by the local entity.
- The regional system is defined as the City's wastewater treatment facilities and a portion of the City's interceptor/collection system needed to serve regional customers. Extensions required to connect a regional customer(s) to the regional interceptor shall be paid for/funded by the local agency(s) that benefits from the extension.
- The City will use "generally accepted" rate setting methods to establish the regional rates and fees. A cost of service analysis will be used to equitably allocate the City's total wastewater system costs between the Regional Wastewater System and the City's retail customers. The City, as the owner of the Regional System, shall be entitled to earn a "fair" return on their investment to serve the regional customers.
- For purposes of the regional system, the City shall be defined as a regional customer, along with all other regional customers.
- System development charges (SDCs) shall be paid by all new regional customers connecting to the regional system and any customers expanding their existing capacity. All regional SDCs shall be used for expansion-related needs of the regional system.
- Local government shall retain responsibility for local rate setting. How regional rates and SDCs are passed through to local customers shall remain a local policy decision.

Given this basic framework of principles and financial policies, the regional wastewater rates and system development charges could be developed.

Development of Regional Wastewater Rates

The development of the regional wastewater rates involved a number of different steps or components. These various steps or components are discussed in more detail below.

Defining the Regional Wastewater System

An important component of the study was clearly defining and identifying the plant facilities and assets related to the regional wastewater system. Wastewater treatment plant is considered to be 100% regional. The main focus of defining the regional system is related to the City's regional pump station and force mains (interceptor and collection system). In defining the regional sewer collection system, HDR worked closely with the City to review the various facilities that appeared to provide regional benefit. From that analysis a detailed map of the facilities was developed, along with the specific assets. The regional assets were also divided into three tiers; existing assets providing regional benefit (Tier 1), assets that will be constructed in the next 25 years that provide regional benefit (Tier 2), and assets that will be built outside of the 25 year time frame (Tier 3). At this time, only Tier 1 "used and useful" assets were included within the return on investment portion of the regional rate analysis.

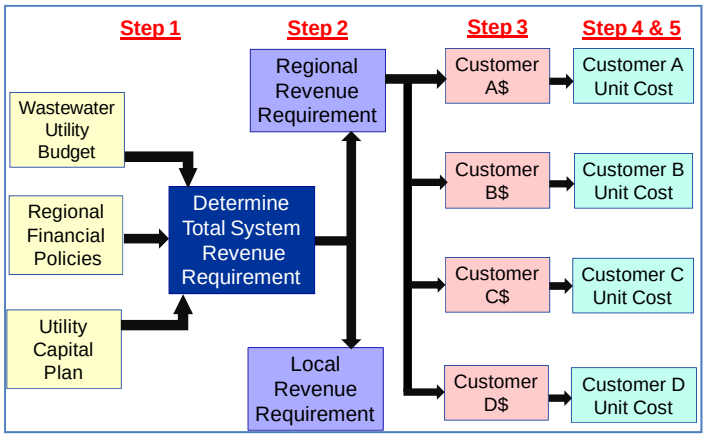
As a regional provider the City of Sioux Falls will need to provide for future capacity in the system. As a part of this study, the City developed a policy statement for capacity expansion such that when the flow exceeds 75% of the permitted capacity for three consecutive months the utility should be studying/planning the next increment of expansion of the plant or the system. When the flow exceeds 90% of the capacity for three consecutive months the utility has to be in construction for the expansion of capacity. This regional rule is intended to provide a prudent rule for the expansion of wastewater treatment capacity, but to also provide regional customers with a clear understanding of the potential future need for expansion of treatment capacity. This policy was developed considering ordinary situations and as such will need to be applied based on ordinary flows with considerations for extreme weather events.

Development of the Regional Wastewater Rate Methodology

To begin the process of developing a regional wastewater rate, a "conceptual" methodology was developed. The intent was to establish a specific regional rate setting methodology which meets the following key objectives:

- Based upon "generally accepted" financial planning and rate setting principles
- Follow the 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 wastewater system
- For regional rate setting purposes, treat City and regional customers as equals[1]
- Equitably assign costs to the regional customers and reflect the unique characteristics of the different regional levels of service

As noted within the guiding principles, "regional customers" includes both the City and the other regional customers. Furthermore, the regional system is composed of the City's wastewater treatment facilities and the regional collection system.



The graphic illustrates, in summary form, the five steps of the regional rate setting process. This methodology is designed to utilize the City's existing wastewater accounting records and develop a regional wastewater rate. As can be seen in this figure, the five step process is summarized as follows.

- Step 1 – Determine the total revenue requirements for the City of Sioux Falls wastewater system
- Step 2 – Allocate (assign) the City's total revenue requirement between Regional and City retail (local costs)
- Step 3 – Allocate the Regional revenue requirement between the regional customers
- Step 4 – Develop unit costs/rate designs for the various Regional customers
- Step 5 – Determine surcharges for exceeding average strength loadings

Allocation of the Revenue Requirement Between Regional and Local (Steps 1 & 2)

The first two steps determine the total revenue requirements of the wastewater utility and then equitably allocate the costs between the regional and local customers. For this study, calendar year 2011 budget information was utilized and then, in accordance with the regional financial policies, projected an additional four years (2012 – 2015).

Summary of Allocation of the Revenue Requirements ($000's)

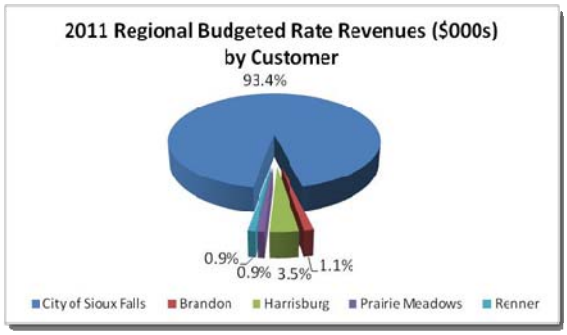
	Total	Local	Regional
Total Revenue	$18,734	$5,167	$13,567
Operation & Maintenance			
Conveyance	$ 3,436	$2,763	$673
Treatment	4,997	166	4,831
Debt Service (P+I)	5,981	1,701	4,280
Capital Improv. from Rates	4,320	765	3,555
Total Revenue Requirement.	$18,734	$5,395	$13,338
Balance/(Deficiency)	$0	($229)	$229

[1] Within the methodology, this essentially is the case. One key difference will be within the rate of return that the City earns on its investment to serve outside City or regional customers. The City as the owner of the regional system is entitled to earn a "fair" return on its investment to serve outside City regional customers.

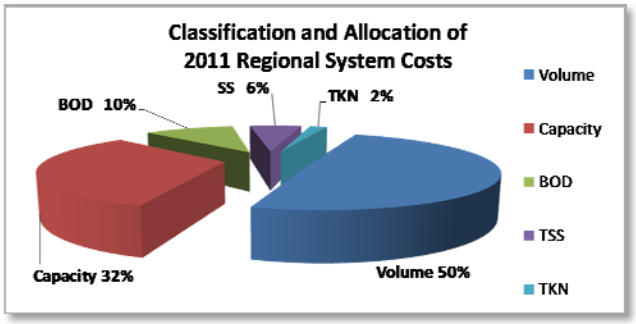
In developing the rate analysis, it was assumed that the revenue requirement would be revenue neutral (i.e. assume no adjustment to overall revenue levels) and the City's total wastewater revenue requirement was equitably allocated between regional and local. Of the City's total wastewater revenue requirement of $18.7 million, approximately $13.3 million is related to the regional system, as defined within this study. The local component of $5.4 million is the cost responsibility of the City of Sioux Falls retail (local) customers.

Allocate the Regional Revenue Requirement Between the Regional Customers (Step 3)

A cost of service compares the current revenue derived from customers to the equitably allocated regional revenue requirement. In the case of the City's system, the vast majority of revenue (93.4%) is derived from the City of Sioux Falls. While the impact of the revenues derived from the other customers has little or minimal impact upon the City's retail rates at this time, the need to establish fair and equitable regional rates is critical if the concept of regionalization is to be successful, to the point that it will attract additional regional customers. The attraction of additional regional customers will have direct benefit to the City's customers in that the existing fixed regional costs will be spread over a larger base of customers.

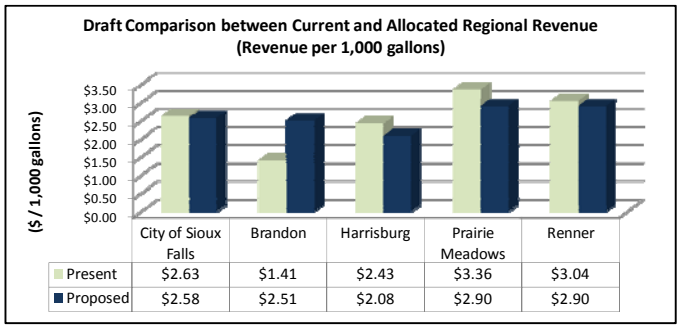


An important concept in establishing the regional rates is the use of a "postage stamp" approach. Under this approach, the regional rate methodology equitably allocates the entire regional system (treatment and collection) across all customers, regardless of the location of the customer (i.e. a postage stamp perspective). Costs were primarily assigned and allocated on the basis of a regional customer's total wastewater (volume) contribution, the strength of the wastewater as measured in biochemical oxygen demand (BOD), suspended solids (SS) and total nitrogen. In allocating the costs, consideration is given to the specific and unique characteristics of the customers. The specific and unique characteristics of each customer were related to their total flows, their peak flow capacities and the strength of the wastewater contributed by each regional customer. In the case of Brandon and Harrisburg, they both own and operate facilities which control the flow of their wastewater (i.e. equalization/capacity use), and in the case of Harrisburg, treat their wastewater to very low strength levels, before it enters the regional system. These differences in capacity use and strength levels ultimately result in different per unit cost (rates) on the regional system.

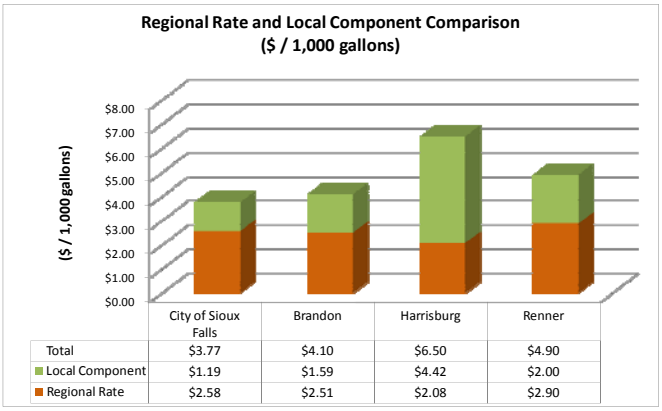


The regional rate methodology includes the City earning a fair return on their investment to serve the regional customers. Within this regional study, a specific formula has been established to have a consistent methodology to establish a fair rate of return to the City's customers. Within this regional study, the rate of return earned from the regional customers has been set at 10.83%. This rate of return includes a risk premium of 3% between the City of Sioux Falls and the outside City regional customers.

This study produced regional rates for each of the existing customers of the City, stated in $/1,000 gallons. The City of Sioux Falls is considered a regional customer under the regionalization approach and will be charged a regional rate for regional services. As can be seen in the graphic, the regional unit cost rates vary by regional customer. It should be noted that the City of Harrisburg and Brandon have calculated regional rates that are less than the City of Sioux Falls. Both Brandon and Harrisburg have facilities to equalize (levelize) their flow of wastewater to the City's treatment plant. Within the cost allocation methodology, as a result the benefit to the regional system from this equalization, Brandon and Harrisburg are allocated a smaller proportional share of the cost of regional capacity, resulting in a lower per unit cost for capacity. At the same time, Harrisburg also treats their wastewater and contributes very low strength wastewater. The cost allocation methodology fairly reflected this difference in wastewater strength levels which resulted in a lower per unit strength related cost for treating Harrisburg's wastewater.



To develop the local retail rate, each local jurisdiction will also need to add their local collection and administrative overhead costs to the regional rates noted above. The local rate setting process shall continue to be the responsibility of the local governing body. However, in order to better understand the potential relationship between regional and local components, this study attempted to place the regional rates in the context of both the local component and the current retail rates being charged by each entity. This may provide a better understanding the ultimate retail sewer rate that may be charged to each entity's customers.



Financial Benefit to the City from Regionalization of the Wastewater System

There are numerous potential benefits from regionalization. However, one important criterion for the City of Sioux Falls City Council may be the financial/economic benefit of regionalization. While earning a fair rate of return on investment to serve outside City customers is one financial benefit, it likely is not as critical as the potential "economies of scale" from a regional system. Should the regional system grow and add new regional customers, the fixed costs of the system will be spread over more customers. Another way this could be considered is every dollar collected from a new regional customer is roughly a dollar less that needs to be collected from a City of Sioux Falls customer. For example, adding a new regional customer of approximately the size of the City of Brandon could potentially reduce the City and regional customer rates by 4¢ to 5¢ per 1,000 gallons. All customers (City and outside regional) will benefit from the addition of new customers since costs (and benefits) are equitably allocated across all customers. In addition, for each new customer connecting to the regional system,

system development charges (SDCs) will be collected. This is not the case under the current cost recovery system.

Summary of the Regional Rate Analysis

The regional rate analysis has developed a fair and equitable methodology to establish regional wastewater rates, while taking into account the specific and unique characteristics of each customer.

Development of Regional System Development Charges

With the review of the regional wastewater rates, the next financial component to be considered are system development charges (SDCs). "System development charges are one-time charges paid by new development to finance construction of public facilities needed to serve them."[2] Simply stated, SDCs are a contribution of capital to either reimburse existing customers for the available capacity in the existing system, or to help finance planned future growth-related capacity improvements, or a combination of both purposes. System development charges are assessed to all new users of the regional system based upon the estimated amount of wastewater generated (capacity). The SDC considers the value of capacity for both regional collection and treatment.

System Development Charges vs. Cost Recovery Fees

The City currently has "cost recovery fees" for their wastewater system. There are similarities between cost recovery fees and SDCs, but there are also some significant differences between them. The comparison below illustrates the similarities and differences between the two.

Cost Recovery Fees	System Development Charges
• CRFs are a form of a capital contribution	• SDCs are a form of a capital contribution
• CRFs recover collection system costs for a specific area or improvement. Does not include the cost of any treatment facilities	• SDCs recover the value of both regional collection and treatment facilities
• Charge is based on specific area (facilities) where development occurs. Charge varies by area.	• SDC is "regional" based (postage stamp). Uniform SDC, regardless of area of development.
• CRFs are only applied to in-City development (note issue of Harrisburg's connection)	• SDCs would be applied to all regional customers (in-City and out-of-City).
• Fees may not reflect all of the collection facilities needed to deliver wastewater to City's treatment facilities	• SDC reflects the regional collection and treatment facilities needed to serve all regional customers
• Fee assessed based upon parcel size (area), which may not have any relationship to capacity utilization	• SDC is based upon needed capacity (capacity requirements)

As can be seen, there are significant differences between these two types of fees. Regional system development charges are more equitable in that all regional customers connecting to the system (in-City and outside City) will pay a regional SDC.

[2] Arthur C. Nelson, System Development Charges for Water, Wastewater, and Stormwater Facilities, Lewis Publishers, New York, 1995, p. 1.

Calculation of the Regional System Development Charges

In general, the process of calculating an SDC can be broken down into the following four tasks:

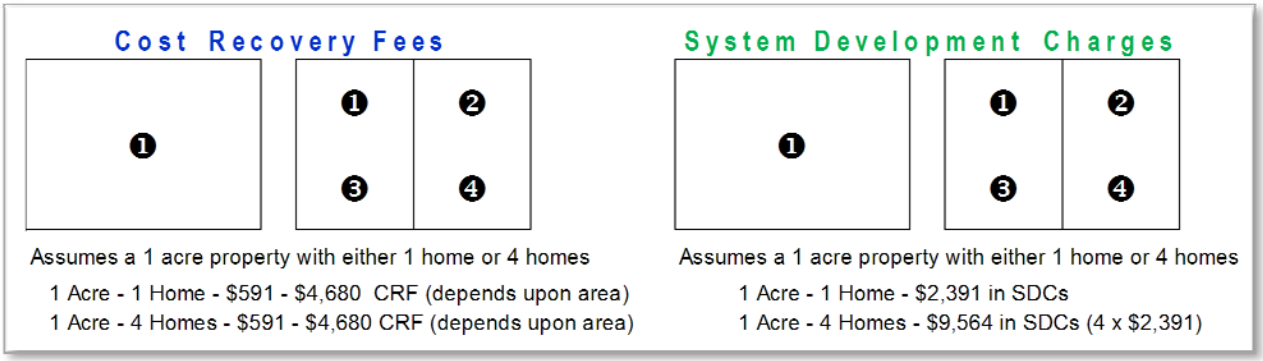
1. System Valuation. The value of the utility's existing assets used in the calculation of the reimbursement fee.
2. Multi-Purpose Project Allocation. The estimation of capital improvement costs related to growth that can be used in the calculation of an improvement fee portion of an SDC.
3. Capacity Definition. Defining the system capacities to be used in the calculation of the SDC.
4. Assessment Schedule Development. A schedule of charges or equivalent units used to determine the SDC charge per customer.

In calculating the regional SDC, the various major components of the regional system were reviewed and their per unit value determined. The SDC was further subdivided between a buy-in and an improvement component for both the regional treatment and collection system.

In summary, the system development charge for one equivalent residential unit (ERU) was calculated as $2,391. An SDC is typically assessed on the basis of capacity use. Water meter capacities are generally used as the surrogate for capacity use. The system development charge increases in direct relation to the capacity associated with the customer's meter. The system development charges are intended to be implemented along with the City's existing cost recovery fees. Regional SDCs are a more equitable method of assessing the costs related to growth and expansion.

Meter Size	Collection	Treatment	Total SDC
5/8" x 3/4"	$780	$1,611	$2,391
1"	2,761	3,217	5,978
1-1/2"	5,521	6,433	11,954
2"	8,834	10,293	19,127
3"	16,564	19,299	35,863
4"	27,607	32,165	59,772

As noted above, SDCs are assessed on the basis of capacity. The diagram below compares the assessment of cost recovery fees to the regional system development charges.



As can be seen from the above comparison, cost recovery fees are assessed on the basis of the area where develop occurs and the amount of acreage of the development and not capacity use. Under cost recovery fees, the fee would be the same for a 1 acre lot with 1 home or 4 homes. In contrast to this, the regional SDC is assessed on capacity, or the number of homes (ERUs) within that development.

At the local level, the local entity is responsible for determining how the regional SDCs are passed through to customers (direct pass-through, within rates, etc.). The local entity may also assess an SDC for their local collection system component.

Summary

System development charges provide an equitable basis for new customers connecting to the regional system. Regional SDCs would be assessed to all new development (in-City and outside City) and the SDCs may be passed through to development in any manner deemed appropriate by the local entity.

Section 1
Introduction

1.1 Introduction

The City of Sioux Falls (City) retained HDR Engineering, Inc. (HDR) to perform a comprehensive regional wastewater study to determine the feasibility of providing regional wastewater service to local outlying communities and what key policy and analytical mechanisms are needed in order to effectively provide regional wastewater service. An obvious and key question is what rates should be charged to regional customers that wish to connect to the City's wastewater system. While that is a key question, there are a number of other key policy, governance and operating decisions that must also be understood.

Regionalization is not a "new" concept for the City's wastewater system. The City currently has agreements with other jurisdictions to provide regional wastewater services. The most recent agreement with the City of Harrisburg raised the important question of regionalization as a concept, but also whether the City's current approach was equitable to the City's existing customers and the new customer's connecting to the wastewater system. To help address that question, a comprehensive analysis of regionalization was undertaken with a focus on regional wastewater rates. In addition, HDR also reviewed the City's existing cost recovery fees and the potential establishment of regional system development charges (SDCs). The development of regional wastewater system development charges is discussed in HDR's Volume 2 report.

The main focus of this volume of the report is on the development of equitable and cost-based regional wastewater rates. In order to accomplish that goal, HDR also reviewed the basic concept or governance principles around regionalization, along with the establishment of a set of written financial policies to guide the development of the regional wastewater rates. As a part of this study, HDR developed a regional rate model to determine at a conceptual/feasibility level the potential impacts to the City and the existing/new regional customers. The regional rate model determined cost-based and equitable regional rates necessary to meet the utility's operating and capital expenses related to regional services in 2011.

1.2 Purpose of Undertaking the Wastewater Regionalization Study

The main driver for undertaking this wastewater regionalization study was an agreement for wastewater services between the City of Sioux Falls and the Town of Harrisburg (Harrisburg). The agreement requires the City to accept municipal wastewater flows from Harrisburg. At the time of the signing of the agreement, there was concern that the City's current cost recovery system may be inequitable between existing customers and the new entity or customers connecting to the wastewater system. Given that concern, the City determined it would be prudent to review the current cost recovery mechanisms and rates, but at the same time, be more forward thinking and establish a consistent approach or methodology to deal with the issue of new jurisdictions connecting to the City's wastewater system. The City recognizes there is an opportunity to be a good neighbor in the metro community and assist other communities in addressing the ever increasing water quality treatment requirements to meet

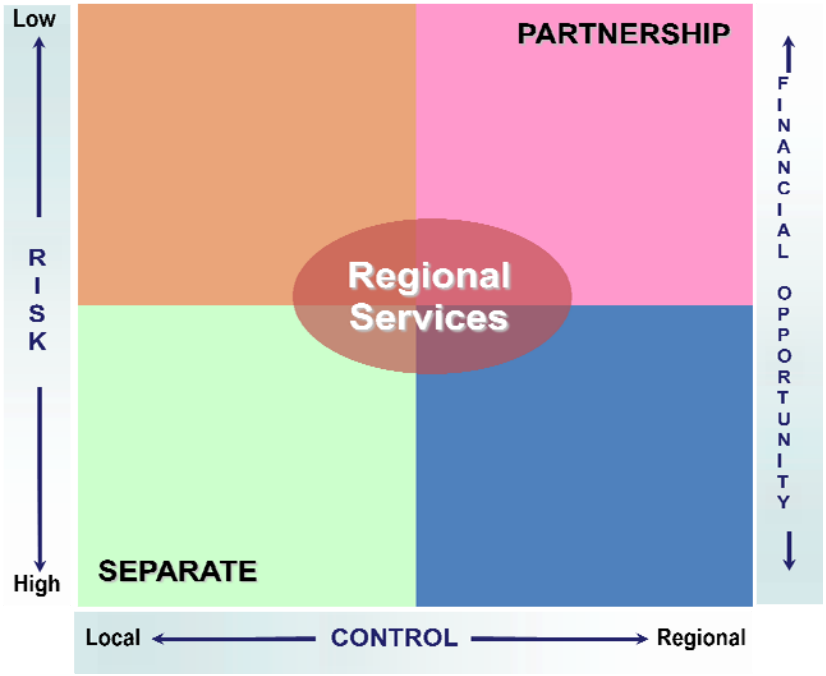
new regulations of the Clean Water Act. However, in doing so, the City needs an equitable method of cost recovery at the time of connection and over the life of the regional agreements.

Another driving force for regionalization is the City's wastewater system has near term treatment capacity available. Therefore it appeared feasible to explore the options available to provide regional wastewater treatment services. In further discussions, the City realized that regional wastewater services could lead to logical development in the Sioux Falls planning area. The City also recognized it could assist itself and surrounding communities benefit from the "economies of scale" and water quality and resource management enhancements through regional cooperation. Complexity of the regulatory environment is challenging for all parties, but particularly for smaller systems.

With new regulations on the horizon, and environmental considerations of the receiving water is an issue, it appeared reasonable to explore the option of providing regional wastewater services to localities within a 10 mile radius of the City.

1.3 Trade-Offs of Regionalization

Regionalization has certain trade-offs between both the City and jurisdictions connecting to the City's wastewater system. The diagram below illustrates those trade-offs. As an individual jurisdiction there is certainly greater local control, but with that greater local control comes potentially greater risk and less financial opportunity to share costs over a wider base of customers. Less financial opportunity to share costs over a wider base of customers may lead to high rates and customer bills. Maintaining local control may also provide less opportunity for certain financing options if the jurisdiction or utility is in a relatively weak financial position. With regionalization, risk should be minimized since risk is being shared over a wider group of customers. At the same time rates may be lower or more affordable as costs are spread over a wider group of customers. However, the trade-off with regionalization is one must give up a certain level of local control. The City and local jurisdiction must determine whether regionalization is an acceptable concept given these trade-offs. While this study has not attempted to quantify the trade-off in risks, this study has attempted to quantify the financial trade-offs by developing a reasonable estimate of the potential regional rates.



It is important to note that this is essentially a "conceptual" study in that the City, at this point in time, has not committed to a regionalized wastewater system, but more importantly, it is

unclear how many potential regional customers may actually connect to the City's system. The results of any regional rate study will vary depending upon the number of jurisdictions that become regional customers. However, it is important to note that HDR does not believe the results shown in this report will vary significantly with the addition of other regional customers because of their relative size in relation to the City's overall wastewater system.

In conducting this study, the City is not attempting to "force" any jurisdiction to regionalize or join the City's system. The City is simply exploring the option of regionalization as an alternative for those jurisdictions that would like to receive wastewater services from the City.

"In conducting this study, the City is not attempting to "force" any jurisdiction to regionalize or join the City's system."

1.4 Summary

This report will review the comprehensive regional wastewater rate analysis prepared for the City. This report has been developed utilizing generally accepted wastewater rate setting methodologies. The next section will review the development of the financial and rate setting policies established for the City's wastewater utility.

Section 2
Establishing Regional Principles

2.1 Introduction

An important starting point in the review of regionalization is beginning with a basic set of principles around which the City will operate the regional wastewater utility. These basic principles were the foundation upon which the financial policies and, ultimately, the conceptual wholesale rate setting methodology was established. This section of the report provides a brief summary overview of these guiding principles for regionalization.

2.2 Establishment of the Guiding Regional Principles

The City, with assistance from HDR, reviewed a number of guiding principles for regionalization. In certain cases, various options were presented to the City for their input and guidance. These various decisions concerning guiding principles needed to be made since it may ultimately impact the final approach or methodology to an issue. As an example, the issues of ownership and governance have impacts at a variety of points. Given clear direction on the guiding principles to be used for regionalization, a clear methodology could be established to reflect those basic principles.

The Regional Principles were divided into six major areas. Provided below is a brief overview and summary of these key guiding principles by area.

- **Ownership**
  - The City is the sole owner of the regional system and is responsible for the operation and maintenance of the regional system.
  - The City is the sole owner of its local wastewater collection system and is responsible for the operation and maintenance of its wastewater collection system.
  - The Regional Customer's own their wastewater collection system and are responsible for the operation and maintenance of their local collection systems.
  - By separate agreement, the Regional Customers may contract with another outside party to operate and maintain their local collection system.
- **Regional System**
  - The "Regional System" is comprised of the City's wastewater treatment facilities and regional interceptors (note: regional interceptors to be clearly identified and defined).
  - Extensions required to connect a Regional Customer(s) to the regional interceptor shall be paid for/funded by the local agency(s) that benefits from the extension.
- **Capacity Reservation**
  - Each Regional Customer will designate their capacity requirements (i.e. reservation of capacity).
  - New (future) Regional Customers will buy-into the reserved capacity via a regional system development charge (SDC).
  - Future expansion of capacity by existing Regional Customers beyond existing reserved capacity levels will be subject to the regional SDC (i.e. payment for additional capacity).

- Reservation of capacity by a Regional Customer does not impart or imply "ownership" of the Regional wastewater facilities.
- Reserved capacity cannot be bought or sold between Regional Customers and any reserved capacity "returned" to the City shall be returned at no cost or obligation to the City.

- **Financial Planning and Rate Setting**
  - The City will use "generally accepted" financial planning and rate setting techniques in establishing rates, fees and charges for the Regional Wastewater System.
  - The City's methodology for establishing Regional Wastewater System rates, fees and charges should reflect the specific and unique characteristics of the regional system.
  - The City will account for its wastewater utility and the Regional Wastewater System as a whole (i.e. no separate accounting for a "regional" system). A cost of service analysis will be used to allocate the total wastewater system costs between the Regional Wastewater System and the City's retail customers.
  - All regional customers shall be separately metered to determine volumetric contributions to the regional wastewater treatment facilities.
  - The City, for the development of their revenue requirement analysis, shall use a "cash basis" methodology. The "cash basis" methodology sums operation and maintenance expenses, taxes/transfer payments, debt service (P+I), and capital improvements funded from rates.
  - The City, for the development of the cost of service analysis, shall use a "utility basis" methodology. Under this methodology, the regional "cash basis" revenue requirement is converted to the "utility basis" which is comprised of operation and maintenance expenses, taxes/transfer payments, depreciation expense and a "fair" return on rate base (net plant investment).
  - The City, as the owner of the Regional System, shall be entitled to earn a "fair" return on their investment [Note: Method to determine "fair" rate of return to be determined as a part of the study and discussion with Regional Customers.]. Under this methodology, the inside City customers, as owners of the system, will have a rate differential between their rates and the outside City and regional customers.
  - Regional Wastewater rates will be uniform across all outside City regional customers.
  - The City shall provide reasonable notice (60 days) of all proposed changes to Regional Wastewater System rates and fees.

- **Regional Wastewater System Development Charges**
  - Regional SDCs will be established and assessed for all new future connections.
  - With the exception of Harrisburg, existing regional customers will be "grandfathered" in for purposes of payment of SDCs on the existing number of equivalent residential units (ERUs). Reserved capacities will be assigned for existing "grandfathered" customers and exempt from SDC payments.
  - Regional SDCs will be established using "generally accepted" methods and the adopted SDCs shall be no greater than the cost established within the SDC study.
  - Uniform SDCs will be established, regardless of the location of the Regional Customer [Note: any costs associated with an extension to connect to a Regional Interceptor shall be borne by the Regional Customer(s) connecting to the system.]
  - The individual Regional Customer which is assessed Regional Wastewater System Development Charges may pass those costs through to their local customers in any manner that they deem appropriate.

- **Policy Governance/Local Control**
  - The City is responsible for establishing all Regional Wastewater System operating, rules, standards and procedures which apply to all Regional customers (City and Regional Customers).
  - The City is responsible for all decisions and sole authority for the Regional Wastewater System to issue debt and establish Regional rates, fees and charges.
  - Regional customers shall retain control of their local rates and fees and their rate setting process.
  - The City may establish a Regional Advisory Committee to provide the City and Regional Customers a framework for regional coordination and opportunities for Regional Customers to provide advisory/feedback on Regional System issues. (Makeup of, role and responsibilities of the Board TBD – i.e. these are governance issues)

The guiding principles noted above are just that — guiding principles which were established at the start of the regionalization process. However, these guiding principles were used as the framework to establish the financial policies and the conceptual wholesale rate methodology.

2.3 Summary

The guiding regional policies were established with input and assistance from the City. The guiding principles are not binding upon the City in the establishment of a regional system, but rather, an aid to help guide the review of regionalization and the establishment of regional policies and a rate setting methodology.

Section 3 – Establishing Written Financial/Rate Setting Policies

3.1 Introduction

Development and adoption of a set of financial policies around which rates will be consistently established is an important policy tool. It has benefits to both the City's wastewater utility management team and the City Council, as well as to all regional and local customers. It was determined at the start of the regional study that it was important to begin the process by establishing a set of financial and rate setting policies to guide the process of establishing the initial financial/rate setting model. More importantly, by establishing a set of written policies the regional customers will have a clear understanding of how the wastewater utility will be managed from a financial and rate perspective.

This section of the report will review the financial policies that were developed as part of this study. These financial and rate policies were utilized in the development of the conceptual regional rate model and analysis.

3.2 Basis for Establishing Financial Polices to Aid in Setting Local and Regional Rates

Financial policies provide the foundation around which rates are established. In essence, they establish the "rules" by which the City Council desires to review rates. In this process of establishing these policies, there are a number of benefits to the City Council and management. Among these benefits are the following:

- Provides management with clear policy direction
- Provides consistent and logical financial/rate (business) decisions
- Provides future City Council's with the basis or reasoning behind past decisions (documentation)
- Helps the City's customers and the regional customers better understand the City Council's financial/rate setting philosophy
- Provides a strong message to the outside financial community (e.g., bond rating agencies)

> *"The outside financial community views written financial policies as a strong indicator of the City's dedication to managing the wastewater utility in a financially prudent and sound manner."*

In this particular case, an established set of financial policies which are adhered to provide a significant benefit to the regional customers. From the regional customer's perspective, they desire assurance that they will be consistently treated in a fair and equitable manner. Written financial policies which are adopted by the City Council provide, to a great degree, that level of assurance.

It should also be understood that the last benefit noted on the above list is a significant point. The outside financial community (rating agencies) views written financial policies as a strong

indicator of the City's dedication and commitment to managing the wastewater utility in a financially prudent and sound manner.

The reality is utilities should be run in a "business-like" manner (i.e., managed in a financially prudent manner). By establishing the "rules" or relationships for financial planning and rate setting, the process can be transparent and provide clear guidance to management as well as develop trust with the regional partners that rates will be cost-based and allocated equitably. It is important to recall that in considering regionalization, the regional customer is willing to give up a certain level of local control (i.e. managing costs/rates) for the trade-off of reduced risk and increased financial surety. An important element in creating reduced risk and increased financial surety is having confidence that the governing body of the regional entity, in this case the City of Sioux Falls City Council, will treat the regional customers in a fair and consistent manner. Trust is the key element in any regional relationship and written financial/rate setting policies, which are adopted by the governing body, simply enhance the level of trust.

"Trust is the key element in any regional relationship and written financial/rate setting policies, which are adopted by the governing body, simply enhance the level of trust."

During the first half of 2010, the financial policies were presented to the City Council as well as stakeholders for feedback and buy-in. On August 3, 2010 the final draft financial policies were provided to the City. These detailed financial policies are attached as Appendix A. The key policies are summarized below.

3.3 Framework for Establishing Financial Policies

In developing the City's financial policies to aid in setting regional and local rates, a basic framework was utilized. This basic framework for establishing the policies was as follows:

1. **Global Policy Statement**
   - 1.1 General Policy Statement 1
     - 1.1.1 Specific Policy Statement
   - 1.2 General Policy Statement 2
     - 1.2.1 Specific Policy Statement

Global policy statements are broad statements of intent. In contrast, the general policy statements are the basic components that are needed to achieve the global policy statement. Finally, specific policy statements, are as the name implies, specific policies and actions that the City Council and management will take to assure that the general and global policy statements are achieved.

In developing the written financial policies, some financial policies are imposed by outside agencies (e.g., minimum debt service coverage ratios). However, most of the financial policies developed as a part of this study are based upon prudent financial practices (i.e. best practices) and the City Council's existing policy direction.

In developing these proposed policies, HDR has used the current financial policy recommendations established by the Governmental Finance Officers Association (GFOA), the National Advisory Council on State and Local Budgeting (NACSLB), and current financial/rate

setting policy examples from other utilities and municipalities. The policies developed for the City are organized around Elements 4 and 5 of the GFOA format.

Provided below is a more detailed review of the financial and rate setting policies developed as a part of this study.

3.4 Overview of the City's Global Rate Setting Policy Statements

The foundation of the policy statement process is the "global policy" statements. It is around these global policy statements that the general and specific policies are established. Provided below is a listing of the eight (8) global policy statements for the City.

> ***1.1 – Purpose of the Wastewater Financial/Rate Setting Policies*** *– 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 wastewater 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 wastewater utility in a financially prudent manner.
- 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 Wastewater Rates and Fees*** *– The City's wastewater 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 wastewater utility.*

This policy provides a detailed discussion of the analytical approach or methodology that should be used in reviewing the regional utility rates and fees. This includes the development of the following analyses:

- ✓ Revenue Requirement Analysis
- ✓ Cost of Service Analysis
- ✓ Rate Design Analysis

In addition, this section of the financial policies addresses the establishment of system development charges (SDCs). SDCs are related to the cost of growth and capacity expansion to serve new customers, and provide an equitable and cost-based method for new regional customers to connect to the regional system.

For purposes of determining and administering SDCs, the City's wastewater 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 capacity" is a "unit of capacity").

SDCs should be established to reflect the City Council's policy or philosophy as it relates to the sharing of growth-related costs between existing customers 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.

1.3 – Reserve Funds – The City's wastewater 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 wastewater 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.

Maintaining adequate reserve levels will allow the wastewater utility to manage the various financial fluctuations. Furthermore, these reserve funds are to provide working capital for normal and ordinary operations, while also providing the ability to address economic downturns and system emergencies. As a part of the policy statement, specific policies regarding the following reserve funds were established.

- ✓ Operating Reserve
- ✓ Catastrophe/Emergency Reserve
- ✓ Capital Reserves: Renewal/Replacement and Equipment Replacement
- ✓ Bond Reserves
- ✓ System Development Charge Reserve
- ✓ Rate Stabilization Reserve

1.4 – Debt Issuance and Debt Management – The issuance of long-term debt is a valuable funding resource for the wastewater utility. Used appropriately and prudently, long-term debt can help minimize the wastewater utility's rates over time. The wastewater 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.

The prudent use of long-term debt to finance capital projects can be an effective tool to help the City minimize regional and local rates over time. This actually begins by providing a clear policy related to the funding of renewal and replacement projects. Adequately funding these "on-going" capital projects through rates will help minimize long-term borrowing over time. A financial planning guideline that is provided within the policy is that renewal and replacement funding from rate revenues should be at least equal to or greater than the annual depreciation expense. This would imply that the regional wastewater system should be annually funding from regional rates an amount that is at least equal to or greater than the annual regional depreciation expense.

When long-term debt is used, it will likely be for significant non-recurring or unplanned events. The City will attempt to use the lowest cost available debt which does not impose any burdensome covenants or reporting requirements. When debt is issued, the City will, for financial planning purposes, target a 1.50 debt service coverage ratio.

> **1.5 – Debt Level and Capacity** – *The City will follow and comply with all statutory debt limitations imposed by the State of South Dakota. All City/wastewater utility debt obligations will comply with statutory requirements.*

The utility may issue revenue bonded debt or non-revenue bonded debt. The ability to issue revenue bonded debt will be the City's ability to support that debt. Any non-revenue bonded debt; the City's Chief Financial Officer shall provide a recommendation on the level and capacity for this type of debt.

> **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 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.).*

Ultimately, the City Council will have the discretion concerning the use of these funds.[3] This policy simply provides the connection between the source (reason) of the funds and their eventual use. For example, a settlement of a claim related to a regional facility would require that those settlement funds be used for regional purposes. Alternatively, a settlement related to the City's local collection system would be used by the City for the local system.

> **1.7 – Balanced Operating Budget** – *The City shall separately track wastewater 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 wastewater utility. The wastewater utility shall not subsidize other City-owned non-wastewater utilities/facilities.*

This policy is well-rounded to address the various areas of proper and adequate funding. It first addresses the issue of a utility being self-supporting and having adequate funding to preserve the system's assets. This should lead to a positive annual net income and sufficient reserves. The City should at all times strive for rate stability in that it reinforces that costs are being managed and controlled. Annual reviews of the rates are a part of the review process and a review by an independent outside party is recommended at least every five (5) years.

> **1.8 – Revenue Diversification** – *As an enterprise fund, the wastewater utility has very limited ability for revenue diversification.*

[3] This statement is not intended to imply that these "one-time" revenues may be used by the City Council in any manner they see fit (i.e. transferred to a fund outside of the wastewater system). Rather, as an example, the City Council could determine that "one-time" revenues related to the regional wastewater system could be applied to outstanding regional wastewater long-term debt, a regional wastewater capital improvement project, etc.

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 utility.

> **2.0 – Programmatic, Operating, and Capital Polices and Plans** – *The wastewater utility's operating 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.*

The City's capital plans should be well-thought out. To that end, the City will properly and adequately fund the utility to meet regulations and standards. As a part of a routine capital planning process, a five-year capital plan will be developed, updated and adopted annually. The City's capital plan should consider mandated capital, growth-related capital and renewal and replacement capital projects.

> **2.1 – Policies and Plans to Guide the Design of Programs and Services** – *The wastewater utility should be accounted for in separate self-supporting enterprise fund. A comprehensive planning document should be completed at least every five years that incorporates and details the wastewater utility's unique 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 wastewater 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 has 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.*

Defining "growth-related" projects and the establishment of system development charges (SDCs) will help to shelter existing customers from the costs related to growth. SDCs should be properly established and the use of SDC revenues should only be applied to growth-related projects or debt. On a yearly basis, the wastewater utility 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.

The above discussion has provided an overview of the proposed global policies for the City's regional and local wastewater utility, and the general reasoning behind each global policy statement.

3.5 Detailed Financial Policies

Contained within Appendix A is the detailed financial policies developed as a part of this comprehensive regional wastewater rate study. Ideally, these written financial/rate setting policies would be formally adopted by the City Council and made a key part of the regionalization financial planning and rate setting process.

"Ideally, these written financial/rate setting policies would be formally adopted by the City Council and made a key part of the regionalization financial planning and rate setting process."

The detailed policies, as written and presented here, are intended to be clear in their objective and direction. Financial and rate setting policies are not intended to be "cast in concrete" but rather, these policies should be routinely reviewed by the City and modified and/or updated to reflect any changing conditions or philosophies of the City and the regional system.

3.6 Summary

The written financial and rate setting policies developed as a part of this study are intended to provide a reasonable framework for the City to operate the regional and local wastewater utility in a "business-like" manner using utility best management practices. These policies will be used as a starting point in the development of the City's conceptual methodology to establish regional wastewater rates. These policies have provided the policy guidance needed to develop the regional methodology and rate model necessary in determining equitable regional rates for all potential regional wastewater partners. The next section of the report provides an overview of the basic theory and methodology used to establish cost-based regional rates.

Section 4 – Development of the Conceptual Regional Rate Setting Methodology

4.1 Introduction

With the establishment of the regional principles and the development of written financial/rate setting policies, the next step in the regionalization process was to develop a "conceptual" methodology to develop the regional wholesale rates. The development of the conceptual rate setting methodology was intended to provide a "blue print" for the development of the technical analyses to be undertaken, while at the same time, incorporating the regional principles and financial/rate setting policies to establish regional rates which are cost-based and equitable between the various types of Regional customers served.

4.2 Broad Intent of the Conceptual Methodology

In developing the conceptual methodology, the intent is to establish a specific methodology for the City and regional customers to develop and establish regional rates which meet the following 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 wastewater system
- For regional rate setting purposes, treat City and regional customers as equals[4]
- Equitably assign costs to the regional customers which reflects the unique characteristics of the different regional levels of service

As used herein, "regional customers" includes both the City and the other regional customers. Furthermore, the regional system is composed of the City's wastewater treatment facilities and the regional collection system.

4.3 Limitations of the Conceptual Methodology

This conceptual methodology, as developed as a part of this study, has been developed in advance of the City expanding its role as a greater regional provider of wastewater collection and treatment. In developing this conceptual methodology, it has attempted to establish a process or 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

[4] Within the methodology, this essentially is the case and is achieved within the proposed methodology. One key difference will be within the rate of return that the City earns on its investment to serve outside City or regional customers. As a part of the regional rate setting principles, along with generally accepted rate setting principles, the City as the owner of the regional system is entitled to earn a "fair" return on its investment to serve outside City or regional customers. This aspect of the study is discussed in more detail in the next section of the report.

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.

4.4 Local Rate Setting and the Establishment of Local Rates

The establishment of local rates shall remain at the local level. This conceptual framework is intended to determine only regional rates, and all decisions concerning the establishment of local rates (i.e. regional costs + local costs) shall remain the responsibility of the local community or utility.

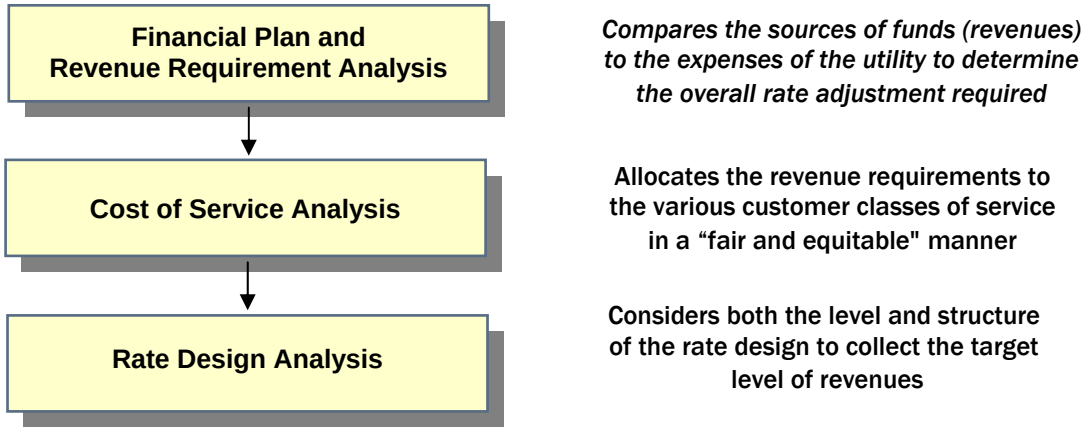
4.5 Defining "Generally Accepted" Rate Setting Methods

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 wastewater rate setting manual: ***Financing and Charges for Wastewater Systems***,[5] Manual of Practice Number 27 (MOP 27), published by the Water Environment Federation (WEF), which is currently considered the industry standard for rate setting for wastewater utilities. The basic principles and methodologies outlined in the WEF MOP 27 manual have been used as a starting point and then tailored to reflect the unique characteristics of the regional wastewater system.

4.6 Overview of the Comprehensive Rate Study Process

In establishing utility rates there is a generally accepted process that is used. A comprehensive study consists of three interrelated analyses performed for the wastewater utility. Figure 4-1 provides an overview of these analyses.

Figure 4-1
Overview of the Comprehensive Rate Setting Process



[5] Water Environment Federation, Financing and Charges for Wastewater Systems, Manual of Practice No. 27, 2005.

The basic framework noted above has been used to develop the regional wastewater rate setting methodology.

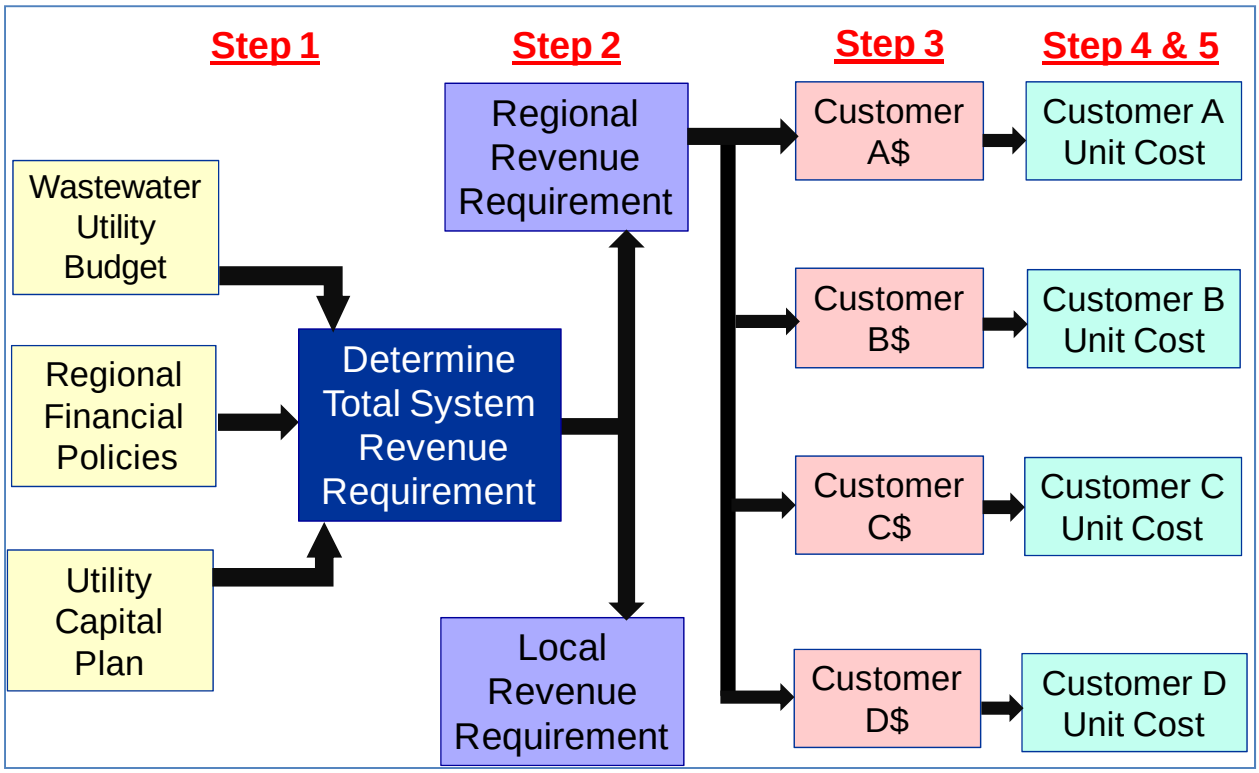
4.7 Development of the Regional Wastewater Conceptual Methodology

This regional rate methodology included a five step rate-setting process. The five step process is summarized as follows.

- Step 1 – Determine revenue requirements for the City of Sioux Falls wastewater system
- Step 2 – Allocate (Assign) the City's revenue requirement between Regional and City retail (local costs)
- Step 3 – Allocate the Regional revenue requirement between the regional customers
- Step 4 – Develop unit costs/rate designs for the various Regional customers
- Step 5 – Determine surcharges for exceeding average strength loadings (as needed)

It is important to note, and as previously discussed, establishing local rates shall remain at the local level. This conceptual framework is intended to determine only regional rates, and all decisions concerning local rates (i.e., regional costs + local costs) shall remain the responsibility of each local community or utility, including the City of Sioux Falls.

The following graphic illustrates in summary form the five steps of the regional rate setting process.



* Step 5 is surcharges when customers exceed average strength loadings

As can be seen, the analysis develops regional wastewater rates by customer. At this point in time, it is unclear whether customers can be grouped into a single homogeneous regional rate or into groups of rates for similar regional customers. The cost of service analysis considers the various usage characteristics of the customers (e.g. flow and strength of wastewater). The interceptor system will be considered a unified system, but the cost of wastewater treatment may vary by customer. An over-arching goal of the regionalization study is to have regional rates which are easy to administer, yet still be fair and equitable.

A detailed Technical Memorandum discussing each of the key steps in the conceptual methodology was developed as a part of this study. This detailed Technical Memorandum can be found in Appendix B of this report. Provided below is a summary of the key components of the conceptual methodology.

4.7.1 Step 1 – Determine Revenue Requirements for the City of Sioux Falls Wastewater System

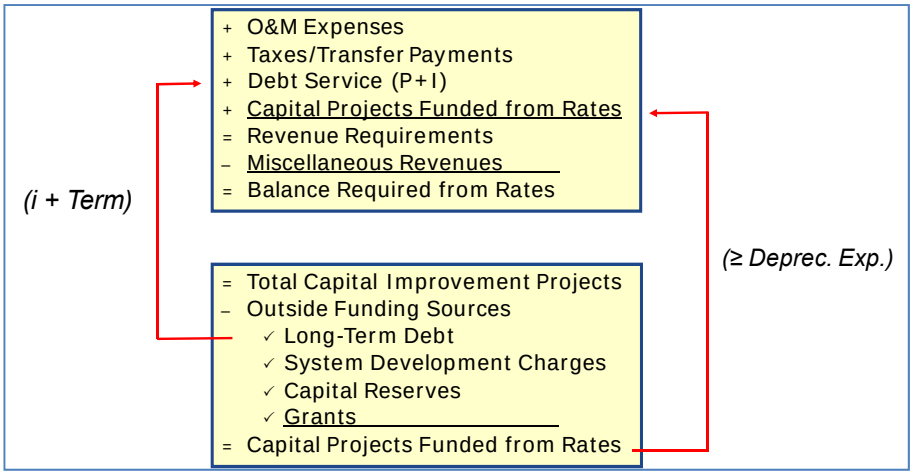
The first step of the regional rate setting methodology is to determine the City's overall revenue requirement. In establishing a regional system, it is not proposed or expected that the City will establish a separate enterprise fund or create a separate accounting system for the regional system. Given that, the first step of the regional rate setting process is to have the City establish a total revenue requirement for their wastewater 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 Sioux Falls wastewater 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 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 developed 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 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, equal to a minimum of depreciation expense.

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 wastewater utility is a self-supporting (or enterprise) system from a financial and rate setting perspective.

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[6] to the financial planning and rate setting criteria contained in the Regional financial planning and rate setting policies.

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 (O&M) 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.



Provided below in Table 4-1 is an overview of the detailed revenue requirement methodology.

[6] 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 4-1 – Overview of the City's Revenue Requirement Methodology

Sioux Falls Regional Wastewater Rate Calculations

Step 1 ***Determine the Total Revenue Requirements for City of Sioux Falls Wastewater 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 wastewater 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 costs

Line No.	Account Description	Approved Budget 2011	Projected Years 2012	2013	2014	2015	Notes
	+ Operation and Maintenance Expenses - [1]						
1	480.11.01 Regular Employee Wages	$#,###	$#,###	$#,###	$#,###	$#,###	Input from budget and escalated
2	480.11.02 Regular Employee Overtime	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
3	480.13.01-10 (include all O&M account detail)	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
4	480.22.01-11 Professional Services	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
5	480.28.01-11 Utilities	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
6	Incremental or Increased Service Level O&M	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
7	***Total Operation and Maintenance Expenses***	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum of Lines 1 - 6
	+ Taxes and/or Transfer Payments						
8	- Tax A - As applicable	$#,###	$#,###	$#,###	$#,###	$#,###	Input from budget and escalated
9	- Tax B - As applicable	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
10	- Transfer Payment 1 - As applicable	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
11	**Total Taxes and Transfer Payments**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum of Lines 8 - 10
	+ Debt Service Payment						
12	- Regional Debt (P+I)	$#,###	$#,###	$#,###	$#,###	$#,###	From Regional Debt Schedule
13	Less: Regional SDCs (≤ 50% of Reg. SDCs Received)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	Input based upon avail. of funds
14	**Net Regional Debt Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 12 - Line 13
15	- Local (Collection) Debt (P+I)	$#,###	$#,###	$#,###	$#,###	$#,###	From Local Debt Schedule
16	Less: Local SDCs (e.g. Local Portion SDCs Received)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	Input based upon avail. of funds
17	**Net Local (Collection) Debt Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 15 - Line 16
	+ Capital Improvements Funded From Rates [2]						
	- Regional Capital Improv. Funded From Rates						
18	Existing Regional Assets	$#,###	$#,###	$#,###	$#,###	$#,###	CIP (Step 1c); ≥ Annual Deprec. Exp.
19	New Expansion Projects	#,###	#,###	#,###	#,###	#,###	CIP (Step 1c); ≥ Annual Deprec. Exp.**[3]**
20	- Local (Collection) Cap. Improv. Funded From Rates	#,###	#,###	#,###	#,###	#,###	CIP L. 24 (Step 1c); ≥ Annual Deprec. Exp.
21	**Total Capital Improvement Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum Lines 18 - 20
22	**+ Change In Working Capital**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	May be + or - change
23	**+ Other Expenses**	#,###	#,###	#,###	#,###	#,###	If not included above
24	**= Total Wastewater System Revenue Requirement**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	L. 7 + 11 + 14 + 17 + 21 + 22 + 23
25	– Less: Miscellaneous Revenues	$#,###	$#,###	$#,###	$#,###	$#,###	Input Misc. (Non-Rate) Revenues
26	**= Net Revenue Requirement**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 24 - L 25

[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 treatment, regional conveyance, local collection, customer accounting, customer service and general and administrative costs.

[2] - See Table 3 (step) 1C for the calculation of capital improvements funded from rates. Line 23 and 24 of Table 3 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] - Transition into annual depreciation expense for any new facilities added to the system in future years.

In reviewing Table 4-1, it is important to note that part of the methodology is to attempt to begin to segregate regional costs from local costs. As an example, both debt service and capital improvements funded from rates segregates these two cost components.

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. Included within the detailed Technical Memorandum is a more detailed discussion of each of these components and their derivation.

4.7.2 Step 2 – Allocate (Assign) the City's Revenue Requirement between Regional and City Retail (Local Collection 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 and City retail (local costs)
Step 2a	Develop allocation methods that may be used to allocate costs between regional and local
Step 2b	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.

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. An example framework was provided in the Technical Memorandum for the potential allocation methods. Essentially, allocation methods should be established which can fairly allocate costs between the Regional and local systems. Since a regional allocation is a new analytical process, the City may need to begin collecting certain data and information to allow for the development of different types of allocation factors. In other cases, the development of certain allocation factors may require some level of judgment or estimates.

Step 2b selects the test period or time period of the revenue requirements 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.

Finally, Step 2c utilizes the allocation factors developed in Step 2a and allocates the revenue requirements selected in Step 2b. Table 4-2 provides the framework for the analysis. The methods of allocation shown on the table are for illustrative purposes only. As a part of the detailed technical analysis, the City will need to determine the appropriate and most equitable methods to allocate the specific costs.

Table 4-2 – Allocation of the Revenue Requirements between Regional and Local

Sioux Falls Regional Wastewater 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]							
1	480.11.01 Regular Employee Wages	$#,###	A	xx.x%	xx.x%	$#,###	$#,###	
2	480.11.02 Regular Employee Overtime	#,###	A	xx.x%	xx.x%	#,###	#,###	
3	480.13.01-10 (include all O&M account detail)	#,###	B	xx.x%	xx.x%	#,###	#,###	
4	480.22.01-11 Professional Services	#,###	F	xx.x%	xx.x%	#,###	#,###	
5	480.28.01-11 Utilities	#,###	C	xx.x%	xx.x%	#,###	#,###	
6	Incremental or Increased Service Level O&M	#,###	A	xx.x%	xx.x%	#,###	#,###	
7	***Total Operation and Maintenance Expenses***	**$#,###**				**$#,###**	**$#,###**	
	+ Taxes and/or Transfer Payments							
8	- Tax A - As applicable	$#,###	G	xx.x%	xx.x%	$#,###	$#,###	
9	- Tax B - As applicable	#,###	J	0.0%	100.0%	0	#,###	
10	- Transfer Payment 1 - As applicable	#,###	G	xx.x%	xx.x%	#,###	#,###	
11	**Total Taxes and Transfer Payments**	**$#,###**				**$#,###**	**$#,###**	
	+ 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%	$#,###	$0	
20	New Expansion Projects	#,###	I	100.0%	0.0%	(#,###)	0	
21	- Local (Distribution) Cap. Improv. Funded From Rates	#,###	J	0.0%	100.0%	0	(#,###)	
22	**Total Capital Improvement Funded From Rates**	**$#,###**				**$#,###**	**$#,###**	
23	**+ Change In Working Capital**	**$#,###**	G	xx.x%	xx.x%	$#,###	$#,###	
24	**+ Other Expenses**	#,###	B	xx.x%	xx.x%	#,###	#,###	
25	**= Total Wastewater System Revenue Requirement**	**$#,###**				**$#,###**	**$#,###**	
26	– Less: Miscellaneous Revenues	$#,###	G	xx.x%	xx.x%	#,###	#,###	
27	**= Net Revenue Requirement**	**$#,###**				**$#,###**	**$#,###**	[2]
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] - Final allocation to City local system is irrelevant for purposes of establishing regional rates. Local rates are established by each local City, and each City may adjust their final local revenue requirement and rates to reflect their City Council's objectives and policy decisions.

At the bottom of Table 4-2 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 flow 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 wastewater (rate) for the regional system, it does not consider the various regional customers and potential variations in levels of service (e.g. strength and capacity) 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 or any of the regional customers may establish local rates to reflect their local policy decisions.

4.7.3 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 on the Regional system. There are six sub-steps associated with the process. Shown below are the various detailed steps.

Step 3	Allocate the Regional revenue requirement between the Regional customers
Step 3a	Identify the various customers and their level of service. Determine whether costs will be allocated to each customer, or adjustments made to an allocated rate (e.g. an "adder" for high strength).
Step 3b	Develop allocation factors for the various regional customers for volume, strength, customer, revenue related and direct assignment classifications.
Step 3c	Functionalize and classify plant in service (rate base) and the revenue requirements between regional and local.
Step 3d	Allocate plant in service (rate base) to each regional customer class.
Step 3e	Using the utility basis approach, allocate the classified regional revenue requirements to the various cost components of the system and summarize the results.
Step 3f	Allocate the various system cost component totals to the various regional customers and summarize the results.

As noted above, this step involves taking the Regional revenue requirement and allocating it to the various regional customers of the Regional system.

The first step (3a) involves defining the classes of service. Within the initial technical analysis, each regional customer will be identified individually to determine what cost differences, if any, may exist. At that point, a determination can be made regarding a system wide rate or

individual rates for individual customers. Additionally, it is important to note that some regional customers who provide pre-treatment to their flow may receive a reduced allocation of costs or a credit on strength charges.

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:

- **Volume Costs**: Volume costs vary with the total quantity of wastewater consumed by a customer, such as chemicals or electricity used in the treatment of wastewater. Volume costs are typically those incurred under average load conditions and generally specified for a period of time such as a month or year.
- **Strength Costs**: Strength-related costs are those costs associated with the additional handling and treatment of high "strength" wastewater. Strength of wastewater is typically measured in biochemical oxygen demand (BOD) and total suspended solids (SS). However, strength-related costs may also include loadings related to nitrogen (TKN). The BOD, SS, and TKN costs are based upon average loading characteristics. Increased loading levels generally equate to increased treatment costs. The increased loading levels beyond the average are allocated based on capacity costs. Pre-treatment is generally required if the discharge is known to regularly exceed the typical waste strength.
- **Capacity Costs**: Capacity costs are associated with costs that exceed the average loading characteristics. Capacity cost is a measure of peak day strength cost loadings. When loadings are significantly higher than average may cause operational (loading) issues from time to time. This approach follows basic cost of service principles in that the cost-causer should be the cost-payer.
- **Customer Related Costs**: Customer costs vary with the number of customers on the wastewater system rather than system output or flow or strength 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 wastewater a customer uses.
  - ✓ "Weighted" customer costs do not vary proportionally with the addition or deletion of customers. For example, a weighted customer cost may be the capital cost of meters, 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 wastewater used or strength. These costs are often related to the level of revenue received, such as taxes or transfers based upon level of revenue generated by the system.
- **Direct Assignments**: Certain costs associated with operating the system may be directly traced to a specific customer or group of customers and, therefore, are directly assigned to that specific customer of customer group.

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

Step 3c involves the classification of regional plant in service. Plant in service is used to classify certain portions of the Regional revenue requirement and also for purposes of the rate of return analysis. 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 sludge treatment, tertiary, biosolids and portions of the interceptors, collectors, lift stations and pumping facilities. In assigning the plant asset costs it is presumed that local collection costs are "local." However, a certain portion of "conveyance" facilities may serve potential Regional customers. As a part of the methodology, the regional conveyance system will need to be clearly defined by the City. A more detailed discussion and exhibit concerning this step can be found in the detailed Technical Memorandum.

Once plant in service has been functionalized and classified to the various cost components, each cost components is allocated to the regional customers to determine each customer's share of the total rate base (net plant investment). This is step 3d of the methodology,

Next, Step 3e classifies the Regional revenue requirements which were previously developed in Step 2. It is important to note that at this point in the analysis the methodology shifts from the "cash-basis" to the "utility basis" approach. The utility basis approach allows the utility to receive a "fair" return on the investment the City has made in the regional wastewater facilities. Therefore, the depreciation expense on facilities and the return on investment components replace the components of capital improvements financed from rates and debt service (principal and interest) that were included in the "cash basis" revenue requirements developed in Step 2. A comparison between the cash basis methodology and the utility basis methodology is shown below in Table 4-3.

Table 4-3
Cash versus Utility Basis Comparison

	Cash Basis		Utility Basis (Accrual)
+	O&M Expense	+	O&M Expense
+	Taxes or Transfer Payments	+	Taxes or Transfer Payments
+	Capital Improvements Financed with Rate Revenues (≥ Depreciation Expense)	+	Depreciation Expense
+	Debt service (Principal + Interest)	+	Return on Investment
=	Total Revenue Requirement	=	Total Revenue Requirement

An overview of the classification of the Regional revenue requirements is shown below in Table 4-4.

Table 4-4: Classification of the Regional Revenue Requirements

Sioux Falls Regional Wastewater Rate Calculations

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

Step 3e - Classification of the Regional Expenses (Regional Revenue Requirement)using the Utility Basis

Concepts:
- Regional share of costs are classified to cost components
- Split between volume and strength is based upon system data from the treatment plant and similar plant experience
- Classifications are for example only, final classifications will depend upon the chart of accounts and level of detail
- Include plant depreciation in place of debt service and rate funded capital to allow for return on investment

Line No.	Description	Regional Share	Volume	SS	BOD	TKN	Capacity	Actual Customer	Weighted Customer	Revenue Related	Direct Assign.	Basis of Classification
	+ Operation and Maintenance Expenses											
1	480.11.01 Regular Employee Wages	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	As Plant Factor 2
2	480.11.02 Regular Employee Overtime	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	As Plant Factor 2
3	480.13.01-10 (include all O&M account detail)	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	As Plant Factor 2
4	480.22.01-11 Professional Services	#,###	#,###	0	0	0	0	0	0	0	0	100% VOL
		#,###	0	0	0	0	0	0	#,###	0	0	100% WC
5	480.28.01-11 Utilities	#,###	#,###	0	0	0	0	0	0	0	0	100% VOL
		#,###	#,###	0	0	0	0	0	0	0	0	As Collection Plant
6	Incremental or Increased Service Level O&M	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	#,###	As Plant Factor 2
7	***Total Operation and Maintenance Expenses***	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$#,###**	**$ 0**	**$ 0**	
	+ Taxes and/or Transfer Payments											
8	- Tax A - As applicable	$#,###	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$#,###	$ 0	Any specific taxes will
9	- Tax B - As applicable	#,###	0	0	0	0	0	0	0	#,###	0	need to be analyzed
10	- Transfer Payment 1 - As applicable	#,###	0	0	0	0	0	0	0	#,###	0	As Revenue Related (RR)
11	**Total Taxes and Transfer Payments**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$ 0**	**$#,###**	**$ 0**	
	+ Depreciation Expense											
12	- Collection System Depreciation	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$#,###	As Collection Plant
13	- Treatment Plant Depreciation	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	#,###	As Treatment Plant
14	- General Plant Depreciation	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	#,###	As Plant Factor 2
15	**Net Regional Debt Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$ 0**	**$ 0**	**$#,###**	
16	– Less: Miscellaneous Revenues	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	$#,###	$#,###	$#,###	As Tot. Rev. Requir.
17	**= Net Revenue Requirement**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$#,###**	**$#,###**	$#,###	
18	**Total Regional Flow (1,000 gallons)**	###,###,###										
19	**Average Cost - Regional Wastewater Rate ($/1,000 gallons)**	**=$/1,000 gal.**										

Note: WEF, MOP No. 27, Financing and Charges for Wastewater Systems, 2005.

The classifications shown in Table 4-4 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 volume-related need, strength-related, capacity-related need, etc.). The classifications should be routinely reviewed and modified to create equitable allocations.

The bottom line (Line 17) is the net 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 4-5 provides the conceptual framework for the allocation of the Regional revenue requirements to the various Regional customer classes of service.

Table 4-5: Allocation of the Regional Revenue Requirements

Sioux Falls Regional Wastewater Rate Calculations

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

Step 3f - 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]	Regional Customer - A	Regional Customer - B	Regional Customer - C	Regional Customer - D	Other (As Needed)	Allocation Factor
1	Volume Related	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	VOL
	Strength Related							
	Suspended Solids (SS)	#,###	#,###	#,###	#,###	#,###	#,###	SS
	BOD	#,###	#,###	#,###	#,###	#,###	#,###	BOD
	TKN	#,###	#,###	#,###	#,###	#,###	#,###	TKN
2	Total Strength Related	#,###	#,###	#,###	#,###	#,###	#,###	
3	Capacity Related	#,###	#,###	#,###	#,###	#,###	#,###	CAP
4	Actual Customer Related	#,###	#,###	#,###	#,###	#,###	#,###	AC
5	Weighted Customer Related	#,###	#,###	#,###	#,###	#,###	#,###	WC
6	Revenue Related	#,###	#,###	#,###	#,###	#,###	#,###	REV
7	Direct Assignment	#,###	#,###	#,###	#,###	#,###	#,###	Direct [2]
8	**Total Net Regional Revenue Requir.**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	

[1] - Column carried forward from bottom line of Table 14, Step 3e (Line 17); classification of the regional expenses.
[2] - Costs that are directly assigned are not allocated, but assigned directly to a particular customer class of service.

Because this is a "utility basis" approach, and the return on investment needs to be taken into account and as a result, there is one additional process within Step 3f which is allocating the rate base and the return on investment to determine the total summary of the cost of service. The summary table which adds in a return on rate base is shown below in Table 4-6.

Table 4-6: Allocation of Rate Base and Return on Investment to Summarize Total Cost of Service

Summary of the Regional Cost of Service Analysis -

Lower Line No.	Description	Total	Regional Customer - A	Regional Customer - B	Regional Customer - C	Regional Customer - D	Other (As Needed)	
1	Total Rate Revenue at Existing Regional Rates	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	
2	Less: Allocated Net Regional Revenue Requir.	#,###	#,###	#,###	#,###	#,###	#,###	L. 8 of allocation above
3	Balance or (Deficiency) of Funds	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	L. 1 - L. 2
4	Rate Base	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	From Step 3d
5	Present Return on Rate Base	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
6	Proposed Return Component	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	TBD
7	Proposed Rate of Return	x.x%	x.x%	x.x%	x.x%	x.x%	x.x%	L. 6 / L. 1
8	Proposed Rate Revenue	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	L. 6 + L. 2
9	Required $ Change in Rates	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	L. 8 - L. 1
10	Percent Change in Rates, as a % of Rate Revenue	x.x%	x.x%	x.x%	x.x%	x.x%	x.x%	L. 9 / L. 1

The summary table provides a comparison between the existing rate levels by regional customer and the and the allocated cost of service for each regional customer.

4.7.4 Step 4 – Development of the Final Proposed Rate Designs

This step takes the analyses previously developed and establishes final unit costs/proposed rate designs for the various regional customer groups.

Step 4 Develop unit costs/rate designs for the various Regional customers	
Step 4a	For each regional customer, divide the classified regional revenue requirements by the billing units (e.g. volume, revenue, number of customers, etc.) to determine the average unit cost for that particular customer.

While the cost of service has developed a simplified rate design within the average unit cost analysis, this 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.).

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 4-7 provides an overview of the conceptual format and approach for the development of average unit costs.

Table 4-7: Development of the Regional Average Unit Costs

Sioux Falls Regional Wastewater 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 3f) 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	Regional Customer - A	Regional Customer - B	Regional Customer - C	Regional Customer - D	Other (As Needed)	Reference
1	Volume Related	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	Step 3f, L. 1
2	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 1 / L. 22
3	Strength Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L. 2
4	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 3 / L. 22
5	Capacity Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L. 3
6	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 5/ L. 22
7	Revenue Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L. 6
8	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 7 / L. 22
9	Direct Assignment	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L. 7
10	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 9/ L. 22
11	Return	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, lower L. 6
12	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 11/ L. 22
13	Total $/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L.2 +L.4 +L.6 +L.8 +L10 +L12
14	Actual Customer Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L.4
15	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 14 / L. 22
16	$/Customer/Month	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 14 / L. 23 / 12
17	Weighted Customer Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L.5
18	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 17 / L. 22
19	$/Customer/Month	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 17 / L. 23/ 12
20	**Total Net Regional Revenue Requir.**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Step 3f, lower L. 8
21	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 20 / L. 22
	Basic Data							
22	Volumetric Flow - 1,000 gallons	#,###,###	#,###,###	#,###,###	#,###,###	#,###,###	--	Treated Flow
23	**# of 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, Step 4, uses this information to design potential final proposed rate designs.

4.7.5 Step 5 – Determine Surcharges for Exceeding Average Strength Loadings

The final step takes the analyses previously developed and establishes surcharges for any excess strength loadings. Shown below is an overview of the final step.

Step 5 Determine surcharges for exceeding average strength loadings

Step 4 designed final rate designs based on the average unit cost analysis. Step 5 designs any applicable surcharges based on exceeding the average strength loadings.

Table 4-8: Determination of High Strength Surcharges

Sioux Falls Regional Wastewater Rate Calculations

Step 5 Determine Surcharges

Concepts: • Utilize the average units costs from step 4 to determine surcharges

Line No.	Cost Components	Total Net Regional Expenses	Regional Customer - A	Regional Customer - B	Regional Customer - C	Regional Customer - D	Other	Reference
1	Capacity Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 4a, L. 5
2	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	Step 4a, L. 6
3	Average Daily BOD	#,###	#,###	#,###	#,###	#,###	#,###	From Allocation 3
4	Peak BOD	#,###	#,###	#,###	#,###	#,###	#,###	From Allocation 3
5	Excess BOD (Peak - Average)	#,###	#,###	#,###	#,###	#,###	#,###	
6	Rate per $/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	Line 2
7	**Surcharge**	**$x.xx**	**$x.xx**	**$x.xx**	**$x.xx**	**$x.xx**	**$x.xx**	**Line 5 X Line 6**

While the above table has shown these charges in $/thousand gallons, the surcharges may also be stated in $/pound.

4.8 Summary

This section of the report has provided a discussion and overview of the conceptual regional rate setting methodology that was established as a part of this study. The intent of developing the conceptual methodology was to provide a "road map" for the development of the actual technical analyses. While this conceptual methodology has provided a "road map" for the development of a model and technical analyses, it is important to note that the concepts contained within this section of the report may change or be modified to reflect the actual data and information that may be available for the regionalization study, along with the actual operations or circumstances of the regional customers. The next section of the report will discuss the definition of the regional system.

Section 5
Defining the Regional System

5.1 Introduction

The definition of the regional system is a critical step of the process of developing regional rates. From this definition, assets and costs can be assigned between the City's regional and local sewer system. This section of the report will discuss the development of the definition of the regional wastewater system.

5.2 Regional Sanitary Sewer Collection System

Wastewater treatment plant is considered to be 100% regional and thus the focus of defining the regional system is related to the City's interceptor and collection system. In defining the regional sewer collection system, HDR worked closely with the City to review the various facilities that appeared to provide regional benefit.

It was originally determined that portions of the existing and proposed sanitary sewer systems owned and operated by the City of Sioux Falls will be used by the regional customers to convey and treat wastewater flows from the regional system. These pipelines, pump stations, and treatment facilities needed to be identified and included as assets within the proposed regional sewer system. For the development of this study, these existing and proposed City owned systems were classified into three tiers:

- **Tier 1** – Existing sanitary sewer collection and treatment components already owned and operated by the City of Sioux Falls which will become part of the regional system.
- **Tier 2** – Proposed sanitary sewer collection and treatment components identified by the City of Sioux Falls to be constructed within the next 25 year planning period based on master plans and comprehensive studies.
- **Tier 3** – Proposed sanitary sewer collection and treatment components identified by the City of Sioux Falls to be constructed outside of the 25 year planning period based on master plans and comprehensive studies.

For purposes of the development of the regional rates it is important to understand that assets should be "used and useful." That simply means that Tier 2 and 3 facilities, while potentially related to future regional service, are not included in the current study or within the return on rate base (net plant investment) calculation.

In order to identify and better understand the facilities and components of the regional system, a trunk sewer map was developed identifying all existing trunk gravity sewer lines 12" or larger throughout the City. From this map, a team of City and HDR staff identified potential tie in points for all regional communities. These tie in points were then used to identify City-owned gravity sewer lines which would become part of the Tier 1 regional system in order to convey sanitary sewer flow from the tie in points to the WWTF. At any location where Tier 1 regional gravity sewer lines enter a pump station, the pump station and forcemain piping is considered part of the Tier 1 regional system as well. Any treatment that occurs at the Tier 1 regional pump station or within the Tier 1 regional gravity sewer system is considered part of the Tier 1 system as a treatment facility.

The Tier 2 and Tier 3 systems were developed by identifying future trunk gravity sewer lines, pump stations, forcemains and treatment facilities which would be used by the regional customers at some time in the future. These future systems were identified from previously developed master plans and comprehensive studies for the City of Sioux Falls. Not all future sanitary sewer systems identified in the master plans and comprehensive studies were considered regional systems.

This method of identifying the regional sewer system appeared to be a fair and conservative approach for all regional customers. All City of Sioux Falls sewer systems identified as regional sewer system have more than one regional customer utilizing the same system. Even though the City of Sioux Falls is a member of the regional system, no City owned and operated sewer systems were added to the regional system that strictly conveys the flows from the City of Sioux Falls residents. On the same note, the regional communities outside of the City of Sioux Falls are responsible for constructing, maintaining, and operating all connecting sewer lines between their community and the regional system.

To place into context the definition of the regional collection system, approximately 15% of the City's total collection system assets were defined as "regional." The remaining 85% of the City's collection assets were considered "local" and not included with the calculation of the regional rates.

Provided below in Figure 5-1 is a summary map of the regional system for the various Tiers of the system.

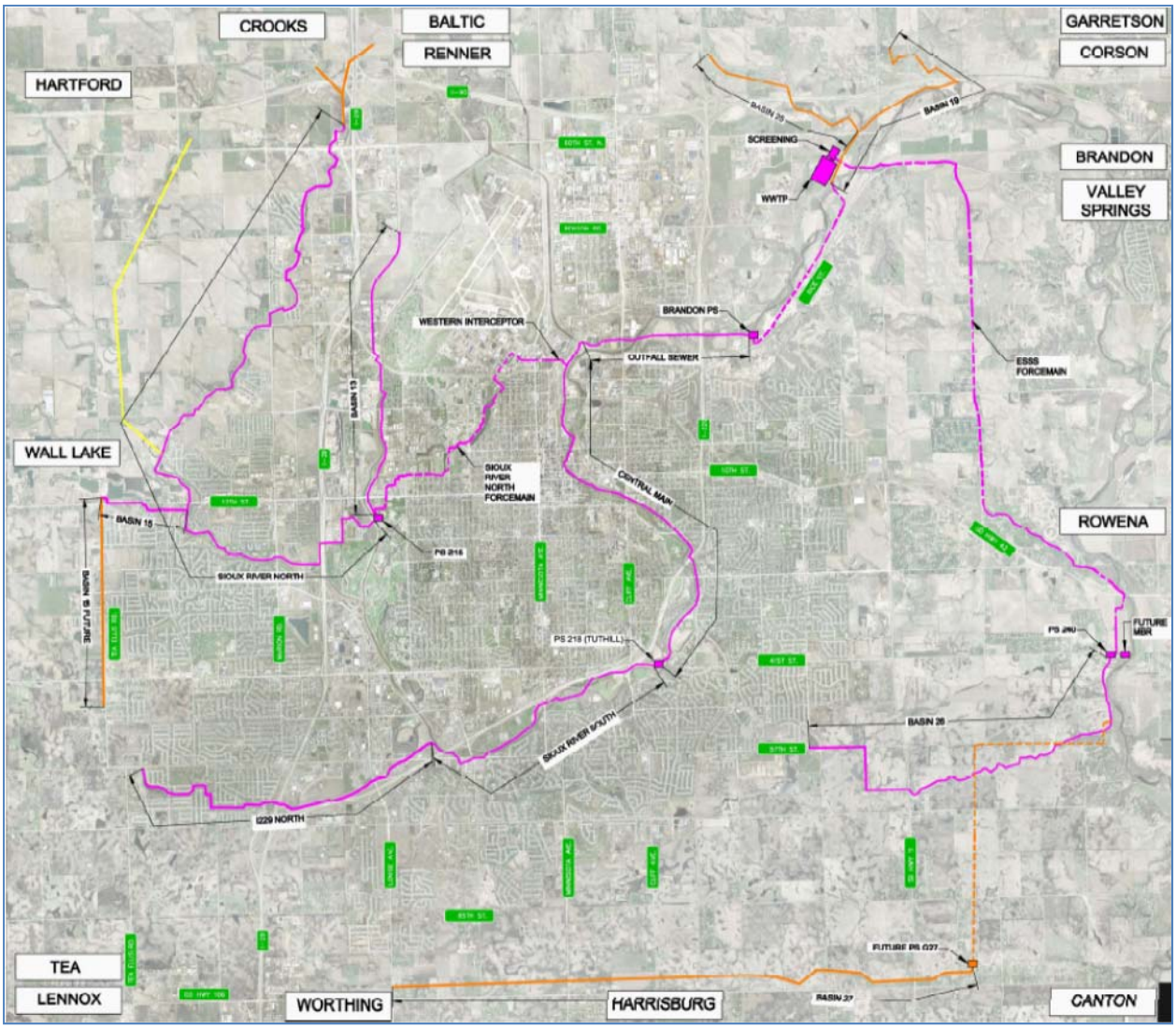


Figure 5-1 – Overview of the Regional System

5.3 Regional Asset Data and Information

From the definition of the regional system, the City's asset data was reviewed and the specific regional assets "pulled out" of the City's asset records. In gathering this data, the original cost of the asset was determined, along with the annual depreciation expense, accumulated depreciation and whether the asset was a contributed asset. From this regional asset data, the regional study could develop the needed information and analyses to determine the regional rates.

5.4 Capacity Development

As a regional provider, the City of Sioux Falls will need to provide for future capacity in the system. Typically regulatory guidance is provided by the State through the NPDES program. Unfortunately, the State of South Dakota does not provide this guidance. A detailed search of nationwide guidelines revealed a number of thresholds for the designing and building of new capacity. After detailed discussion with the City, the City was comfortable recommending the following policy for the development of additional capacity in the Sioux Falls Sanitary Sewer System:

> ***75/90 Rule:*** *When flow exceeds 75 percent of the permitted capacity for three consecutive months the utility should be studying/planning the next increment of expansion of the plant or the system. When the flow exceeds 90 percent of the capacity for three consecutive months the utility has to be in construction for the expansion of capacity.*

The above regional rule is intended to provide a prudent rule for the expansion of wastewater treatment capacity, but to also provide regional customers with a clear understanding of the need to expand treatment capacity.

5.5 Summary

This section of the report has discussed the development of the definition of the regional system. From this definition of the regional system, the regional rate can be developed. The next section of the report will discuss the development of the regional sewer rates.

Section 6 – Development of the Regional Wastewater Rate Analysis

6.1 Introduction

The previous section of the report developed a detailed conceptual methodology to develop the regional wastewater rate analysis. While the conceptual methodology provides an approach to analyze regional wastewater rates, it does not provide the City with a complete understanding of the potential financial and rate implications of that conceptual methodology. Given that, an analysis was undertaken to better understand the potential rates under regionalization.

This section describes the development of the regional wastewater rate analysis. The discussion will follow the key steps noted in the previous section of the report. In developing this analysis, the regional principles, financial policies and conceptual framework have been incorporated and used to develop this analysis.

The intent of this analysis is to provide the City with an understanding of the potential financial and rate implications of regionalization. This is not a formal rate study, *per se*. While the same care and level of detail has been undertaken within this study as a formal comprehensive rate study, it still remains a conceptual analysis intended for discussion purposes of the City and regional partners.

6.2 Overview of the Key Steps

The previous section of the report provided an overview of the conceptual methodology. As will be recalled, the conceptual regional rate setting methodology contained a five step rate-setting process. The five step process is summarized as follows.

- Step 1 – Determine revenue requirements for the City of Sioux Falls wastewater system
- Step 2 – Allocate (Assign) the City's revenue requirement between Regional and City retail (local costs)
- Step 3 – Allocate the Regional revenue requirement between the regional customers
- Step 4 – Develop unit costs/rate designs for the various Regional customers
- Step 5 – Determine surcharges for exceeding average strength loadings

The following discussion will review in detail each of these five analytical steps.

6.3 Step 1 - Determine Revenue Requirements for the City of Sioux Falls Wastewater System

The development of the City's revenue requirements is the first step of the regional rate setting process. A revenue requirement analysis is used to determine the overall operational and capital funding needs of the utility. In developing the regional wastewater revenue requirement, it was assumed the utility must financially "stand on its own" that is, be self-supporting, and be properly and adequately funded. As a result, the revenue requirement analysis as developed herein assumes the full and proper funding needed to operate and maintain the regional system on a financially sound and prudent basis.

At a detailed level, Step 1 of the regional methodology is composed of four sub-steps. Provided below is an overview of these sub-steps.

Step 1 Determine revenue requirements for the City of Sioux Falls wastewater 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 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 developed 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 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, equal to a minimum of depreciation expense.

Provided below is a detailed discussion of the development of the revenue requirement analysis for the City's regional wastewater utility. While a full revenue requirement is necessary to identify the regional cost components, the funding level of the local portions of the utility is not an issue addressed in the regional analysis, but rather, is a local issue addressed by the City Council.

6.3.1 Step 1a – Selection of the Revenue Requirement Methodology

The regional rate financial policy specifies a "cash basis" revenue requirement methodology. This methodology is composed of operation and maintenance expenses, taxes/transfer payments, debt service (P+I) and any capital improvements funded from rates. The regional rate analysis used this methodology to establish the City's overall revenue requirement.

The wastewater revenue requirement analysis developed for the City was customized to follow the City's system of accounts (budget documents). Table 6-1 provides a summary overview of the "cash basis" approach used to develop the City's wastewater utility revenue requirement analysis.

Table 6-1
Overview of the Cash Basis Revenue Requirement Analysis

+ Wastewater Operation and Maintenance Expenses
  - ✓ Collection System
  - ✓ Engineering
  - ✓ Environment
  - ✓ Treatment
  - ✓ Wastewater/Street
+ Net Capital Improvement Projects Funded from Rates
  - ✓ Regional Capital Projects[1]
  - ✓ Local Capital Projects
+ Debt Service (P + I) – Existing and Future
  - ✓ Regional Debt Service
  - ✓ Local Debt Service

± Change in Working Capital .

= Total Wastewater Revenue Requirement

− Miscellaneous Revenues .

= Total Revenue Requirement Funded from Rates

[1] Net Regional Capital Improvement Projects Funded from Rates

+ Total Regional Sewer Capital Improvement Projects
  Funding Sources Other than Rates
  - ✓ System Development Charges
  - ✓ Grants
  - ✓ Capital Reserves

− ✓ Long term debt issues .

= Net Regional Capital Improve. Funded From Rates (≥ Annual Deprec. Expense)

Given the specific methodology, the focus shifts to sub-step 2b, the selection of the test period and projection of operating costs.

6.3.2 Step 1b - Selection of the Test Period and Project Operating Costs

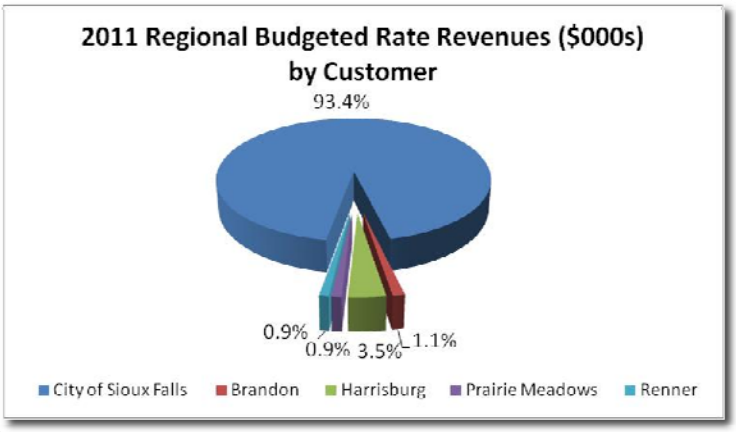
The regional financial policy requires the projection of costs for a five-year time period. The intent of reviewing a five-year period is to provide the City with a projection of costs and rates over an extended time period horizon. By projecting costs over a multi-year time period the City can generally identify any major expenses or rate impacts that may be on the horizon. By anticipating future financial requirements, the City can begin planning for these changes sooner, thereby minimizing rates and rate impacts over both the short and long-term.

For this study, calendar year 2011 was used as the starting point for the projection of the revenue requirements. Therefore, the five-year projected period for this study was 2011 – 2015. Given a time period around which to develop the revenue requirement and a method to accumulate the appropriate costs, the focus shifts to the development of the revenues and operating expenses.

The primary financial inputs in this process were the City's historical billing records, operating budget, and current capital improvement plan. Presented below is a detailed discussion of the steps and key assumptions contained in the development of the projections of the City's wastewater revenues and expenses.

Rate revenues are the major funding source for the wastewater utility. Typically, in projecting rate revenues, a projection of billing units for the retail and wholesale customers are developed. From those projected billing units, they may be multiplied by the actual rates in place. This method of independently calculating revenues assures the projected revenues used within the analysis tie to the billing units. For this particular study, the City's rate revenues for 2011 were not calculated, but rather, were taken directly from the City's 2011 budget. For purposes of this study, using the City's 2011 budgeted revenues was deemed to be reasonable for purposes of this particular study.

The vast majority of the regional rate revenues are derived from the City's retail customers. Currently, the regional wastewater system has five wholesale customers: Brandon, Harrisburg, Prairie Meadows, Renner, and Sioux Falls. In total, at present rates, the wastewater utility is projected to receive approximately $18.4 million. In addition to rate revenues, the wastewater utility also receives a variety of miscellaneous revenues of approximately $370,000 per year. In total, the wastewater utility has total sources of funds of approximately $18.7 million.



Operation and maintenance (O&M) expenses are incurred by the City to operate and maintain the existing plant in service. The costs incurred in this area are expensed during the current year and are not capitalized or depreciated. In general, operation and maintenance expenses are grouped into a number of different functional categories (see Table 5-1). The functionalized O&M expenses were categorized as collection system, engineering, environment, treatment, and wastewater/street. While the focus of this study is on the 2011 time period and the eventual allocation of costs to the regional customers, the analysis was still developed such that the O&M expenses were projected for the five-year period using assumed escalation factors. In total, the O&M expenses for the City's wastewater utility were projected to be approximately $8.4 million for 2011. The O&M was projected to increase to approximately $9.4 million by 2015.

6.3.3 Step 1c – Projection of the Capital Costs

The capital costs associated with the "cash basis" revenue requirement analysis is related to the debt service and capital improvements funded from rate of the utility. Both of these cost components were projected for the five-year projected test period.

The debt service costs include both the principal and interest payments associated with any outstanding debt. Given the need to eventually have costs split between regional and local costs, the debt service has been split between regional and local at this point of the analysis. At the present time, the City has local and regional debt obligations. The City reviewed the outstanding debt issues and provided to HDR a segregation of the debt between local and regional debt. All local debt is the obligation of the City's retail rate payers. In contrast to this, regional debt is the obligation of all regional customers.[7]

[7] Regional customers includes the City's retail customers.

For 2011, the local debt payment obligation is approximately $1.7 million, while the 2011 regional debt obligation is approximately $4.3 million. In 2011, there are nine regional debt obligations, all of which are SRF loans. The largest existing SRF loan was established for the first phase of the Eastside Sanitary Sewer System (ESSS) and is approximately a $1.1 million annual payment.

Capital improvements funded from rates is not the total capital improvement program, but rather, that portion of the capital projects to be funded from rate revenues. Similar to the debt service discussion, the capital projects funded from rate revenues were segregated between local and regional projects. At the same time, there are certain financial policies related to the funding of this component. In particular the regional financial policy states that the regional system shall fund an amount equal to or greater than the annual depreciation expense of the regional system. Given that financial policy and analysis of the regional system was provided that indicated that the regional system annual depreciation expense is currently $3.55 million. Given that, the capital improvement plan was structured to have the capital improvements funded from rates to equal $3.55 million.

For this particular study, it was also determined that the revenue requirement would be set equal to a 0.0% rate adjustment. In making that decision, the local portion of the capital improvements funded from rates was set at a level to balance to the remaining available rate funding. In this particular case, the remaining available funding balance was $765,000. Future rate adjustments are anticipated to increase this funding component.

6.3.4 Step 1d – Review of Financial Planning Criteria

As a part of the regional rate setting process and regional financial policies, other financial planning criteria must be considered and reviewed. More specifically, the analysis shall properly maintain reserve levels, debt service coverage (DSC) ratios and minimum funding for capital improvements from rates. The detailed financial policies specify these requirements.

The financial policies require the maintenance of minimum reserves for the operating reserve and the repair and replacement reserve. The operating reserve requires a minimum reserve equal to 90 days of O&M expenses, while the repair and replacement reserve requires a minimum balance equal to approximately one year of repair and replacement projects. For 2011, both of these minimum reserve balance requirements have been met.

Debt service coverage is a financial measure of the utility's ability to repay debt. The financial policies specify that the minimum DSC for regional revenue bonded debt shall be 1.50 and for all outstanding debt service it shall be 1.30. For 2011, both of these coverage requirements have been satisfied.

The final component of the key financial planning criteria is the minimum funding of regional capital improvement projects from rates. This aspect of study was discussed in the previous subsection and this study has funded a regional component equal to the regional system annual depreciation expense.

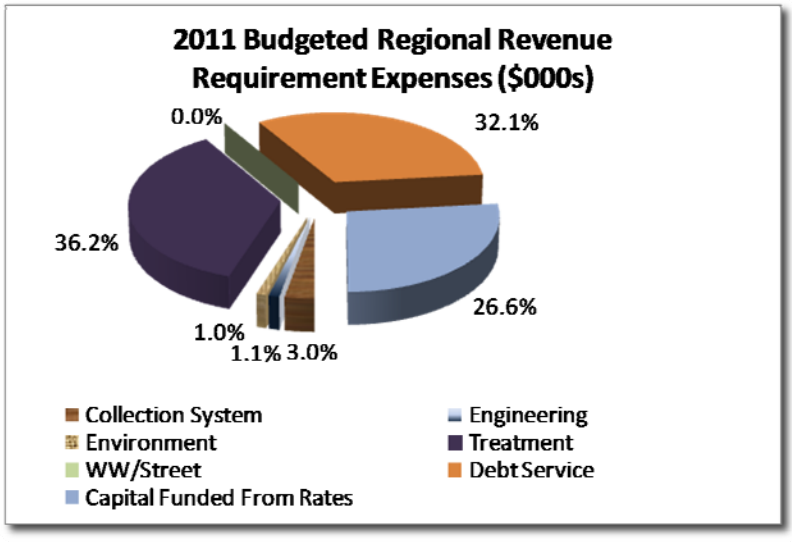
6.3.5 Summary of the Revenue Requirements

Given the above projections, the revenue requirements could be summarized for the 2011 to 2105 time period. Provided below in Table 6-2 is a summary of the revenue requirement analysis developed as a part of this study.

Table 6-2
Summary of Revenue Requirement Analysis ($000's)

	2011	2012	2013	2014	2015
Sources of Funds					
Rate Revenues at Present Rates	$18,365	$18,549	$18,735	$19,015	$19,301
Miscellaneous Revenues	369	318	351	382	377
Total Sources of Funds	$18,734	$18,867	$19,086	$19,397	$19,678
Application of Funds					
Operation & Maint. Expenses	$8,433	$8,671	$8,916	$9,169	$9,429
Debt Service –					
Regional Debt	4,280	6,580	7,335	7,396	8,450
Local Debt	1,701	2,444	2,030	2001	1,855
CIP Funded From Rates –					
Regional CIP from Rates	3,555	3,550	3,575	3,600	3,625
Local CIP from Rates	765	1,000	1,250	1,500	1,750
Change in Working Capital	0	0	0	0	0
Total Revenue Requirements	$18,734	$22,244	$23,106	$23,665	$25,108
Balance (Deficiency) of Funds	$0	($3,377)	($4,021)	($4,268)	($5,430)
Bal. (Def.) of Funds as a % of Rates	0.0%	18.2%	21.5%	22.4%	28.1%

As noted previously, this analysis will focus on 2011 and the revenue requirement for 2011 has been balanced (limited) to equal the total revenue sources. In establishing regional revenue requirements, all of the key financial planning criteria have been met for the 2011 test period (i.e. minimum reserve levels, DSC and CIP funding from rates).



The detailed revenue requirement analysis can be found on Exhibit 3 in Technical Appendix C. Given a revenue requirement for 2011, the focus shifts to Step 2; the assignment or allocation of the total revenue requirements between the regional and local customers. A more detailed discussion of this aspect of the study is provided below.

6.4 Step 2 – Allocate (Assign) the City's Revenue Requirement Between Regional and City Retail (Local 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. The revenue requirements as developed in Step 1 had certain costs segregated

between the regional and local customers (e.g. debt service), but not all costs were segregated between regional and local, particularly the O&M expenses.

Within the development of the conceptual methodology, three sub-steps were identified to accomplish this task. Shown below are the various detailed sub-steps.

Step 2	Allocate (assign) the City's revenue requirement between Regional and City retail (local costs)
Step 2a	Develop allocation methods that may be used to allocate costs between regional and local
Step 2b	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.

Provided below is a more detailed discussion of each of these steps.

6.4.1 Step 2a – Develop Allocation Methods

The conceptual methodology discusses potential allocation methods that may be used to assign or allocate the revenue requirements between the regional and local customers. However, the conceptual methodology recognized that until the actual analysis is conducted, it is difficult to fully understand any limitations of data to develop the allocation factors, or the specific allocation methods that may be used for certain costs. Given that perspective, a major aspect of this sub-step was to consider the types of costs to be allocated, the most equitable methods that may be used to allocate those costs, and finally, the data currently available to develop the allocation factors (methods). As a part of this analysis, eleven separate and distinct allocation methods were developed to equitably assign (allocate) the total wastewater revenue requirement between the regional and local customers. As can be seen in Table 6-3, data was available to develop ten of the eleven allocation methods.

Table 6-3
Summary of Regional Allocation Methods and Resulting Allocations

Line No.	Method	Allocation Description	% Regional	% Local
1	A	Labor Hours/Wages of FTE's [1]	N/A	N/A
2	B	Total Gross System Investment	49.8%	50.2%
3	C	Collection and Pumping Plt Investment	31.0%	69.0%
4	D	Total Treatment vs. Collection Expenses	65.5%	34.5%
5	E	Volume Sales (1,000 gallons)	51.8%	48.2%
6	F	Diameter/Length of Collection System	15.0%	85.0%
7	G	Revenues (Regional vs. Local)	72.4%	27.6%
8	H	Eastside Total Construction Cost	54.9%	45.1%
9	I	Direct – 100% Regional	100.0%	0.0%
10	J	Direct – 100% Local	0.0%	100.0%
11	K	Bond Split (Regional vs. Local)	69.7%	30.3%

[1] – Method is contained in the model; data was not available to allow for determination

While ten methods were developed, that does not necessarily imply that all ten methods were used within the analysis. The process was such that the allocation methods were developed, and then the costs were allocated using the most appropriate or equitable method of those available.

A more detailed exhibit of the development of these regional allocation factors can be found on Exhibit 5 of Technical Appendix C.

6.4.2 Step 2b – Select the Revenue Requirement Test Period

The revenue requirements developed previously were projected for a five-year time frame. In this case, the regional cost allocation considers only a single year for purposes of cost allocation. For this study, the 2011 revenue requirements were allocated between the regional and local customers.

6.4.3 Step 2c – Allocate the Revenue Requirement to Regional and Local

The final step of this portion of the analysis is to take the 2011 revenue requirement and determine the most appropriate or equitable method to assign costs between regional and local customers.

In allocating the revenue requirement, many of the costs were clearly identifiable as either treatment or collection system costs based upon the City's system of accounts. At the same time there were certain expenses that had previously been assigned between regional and local (e.g. debt service and capital improvements funded from rates). For those expenses which were not clearly identifiable as treatment/collection and/or regional/local, discussions were held with the City to determine an equitable method of allocation.

Provided below in Table 6-4 is a summary of the allocation of the total 2011 revenue requirement between regional and local.

Table 6-4
Summary of the 2011 Wastewater Revenue Requirement

	2011	Regional	Local
Sources of Funds –			
Calculated Rate Revenues	$17,491	$12,454	$5,038
Wholesale Customers	874	874	0
Miscellaneous Revenues	369	240	129
Total Source of Funds	$18,734	$13,567	$5,167
Applications of Funds –			
Operating Expenses –			
Collection System	$2,637	$395	$2,242
Engineering	472	146	326
Environment	201	132	69
Treatment	4,997	4,831	166
Wastewater/Street	125	0	125
Total Wastewater O&M Expenses	$8,433	$5,504	$2,929
Net Debt Service Payments	$5,981	$4,280	$1,701
Total Capital Improve. Projects Funded From Rates	4,320	3,555	765
Total Change in Working Capital	0	0	0
Total Application of Funds	**$18,734**	**$13,338**	**$5,396**
Balance/(Deficiency) of Funds	**$0**	**$229**	**($229)**
Balance as % of Rev from Rates	**0.0%**	**-1.7%**	**4.5%**
Average Cost - $/1,000 gallons		**$2.61**	**$1.14**

As can be seen from the above table, the total revenue requirement for 2011 is $18.7 million. Of this amount, approximately $13.3 million is related to the regional system and the balance, or $5.4 million is a local collection system cost.

At the bottom of Table 6-4 is an average unit cost for the regional and local collection system. Based upon the analysis developed herein, the average cost for the regional system is $2.61/1,000 gallons, while the local cost is an additional $1.14/1,000 gallons. For a regional customer, the $2.61/1,000 gallons simply represents an average cost for the regional system, and does not take into account any unique characteristics of the individual regional customers. In essence, the $2.61 represents a “postage stamp” rate for the regional system.

The detailed regional analysis which is summarized in Table 6-4 can found on Exhibit 6 of Technical Appendix C.

6.5 Step 3 – Allocate the Regional Revenue Requirement Between the Regional Customers

The third step takes the regional revenue requirement and equitably allocates it between the various regional customers. This particular step is very similar to a traditional sewer cost of service in which costs are classified and then allocated to the various customer classes of service, in this case, the regional customers. The various steps associated with this portion of the analysis are shown below.

Step 3 Allocate the Regional revenue requirement between the Regional customers	
Step 3a	Identify the various customers and their level of service. Determine whether costs will be allocated to each customer, or adjustments made to an allocated rate (e.g. an "adder" for high strength).
Step 3b	Develop allocation factors for the various regional customers for volume, strength, customer, revenue related and direct assignment classifications.
Step 3c	Functionalize and classify plant in service (rate base) and the revenue requirements between regional and local.
Step 3d	Allocate plant in service (rate base) to each regional customer class.
Step 3e	Using the utility basis approach, allocate the classified regional revenue requirements to the various cost components of the system and summarize the results.
Step 3f	Allocate the various system cost component totals to the various regional customers and summarize the results.

Provided below is a detailed discussion of each of these steps.

6.5.1 Step 3a – Identify Customers and Levels of Service

In this particular step, the individual customers or customer groups to which costs will be allocated are identified. In this particular study, the focus was on determining whether cost differences did exist between the various customers being served. By identifying the cost to serve each individual customer, a more informed judgment can be made concerning a "postage stamp" wholesale rate for all regional customers, or a grouping of customers into common levels of service. For this study, the customer classes of service within the regional cost allocation study were as follows:

- City of Sioux Falls
- City of Brandon
- City of Harrisburg
- Prairie Meadows Sanitary District
- Renner Sanitary District

It should be noted that all of the outside City customers currently have wholesale agreements with the City. While the utility has currently has four wholesale customers, there are numerous other potential regional customers under consideration, all within a 10-mile radius of the City. However, only the existing wholesale customers were examined in this regional rate study.

Level of service refers to whether a customer fully relies upon the City for the treatment of wastewater. There may be situations in which a customer has their own lagoons which are capable of minimizing their peak capacity flows to the City's wastewater treatment plant. This has the benefit of not placing large peak capacity demands upon the City's wastewater treatment plant. In addition, a customer may have lagoons and actually hold the wastewater

in their system to treat the wastewater to a low "strength" level prior to conveying it to the City. These two situations pose different cost impacts upon the City when compared to a City that does not have the ability to manage flows to the City's wastewater treatment plant or sends untreated (full strength) wastewater. This study has taken these differing levels of service into account. As a point of reference, the City of Brandon has lagoons and can manage their peak capacity flows to the City's treatment plant. In contrast to this, the City of Harrisburg can also control their peak flows, but also holds and treats their wastewater to a wastewater strength level that is less than a typical domestic level strength of wastewater.

6.5.2 Step 3b – Develop Allocation Factors

A cost of service study analyzes data by functionalizing, classifying and then allocating the costs. To better understand these terms, a detailed discussion is provided below.

Functionalization is the arrangement of expenses and asset (plant) data by major operating functions (e.g. collection, treatment, etc.). Within this study, the functionalization of the cost data was largely accomplished through the City's system of accounts.

The second analytical task performed in a wastewater cost of service study is the classification of the costs. Classification determines why the expenses were incurred or what type of need is being met. The City's regional plant accounts and revenue requirement were reviewed and classified using the following cost classifiers:

- **Volume Related Costs:** Volume related costs are those costs which tend to vary with the total quantity of wastewater collected and treated by a customer. A majority of collection system costs and treatment costs are included in this component. An example of a volume related cost is electricity used for pumping wastewater.
- **Capacity Related Costs:** Capacity related costs are those costs related to the peak flow requirements. Many facilities, such as the treatment plant, are sized around peak capacity flows.
- **Strength Related Costs:** Strength related costs are those costs associated with the additional handling and treatment of high "strength" wastewater. Strength of wastewater is typically measured in biochemical oxygen demand (BOD), total suspended solids (SS) and total nitrogen (TKN). Increased levels of BOD, SS or TKN

Terminology of a Wastewater Cost of Service Analysis

Functionalization – The arrangement of the cost data by functional category (e.g. treatment, collection etc.).

Classification – The assignment of functionalized costs to cost components (e.g. volume, strength, and customer related).

Allocation – Allocating the classified costs to each class of service based upon each class's proportional contribution to that specific cost component.

Volume Costs – Costs that are classified as volume related vary with the total flow of wastewater (e.g. chemical use at a treatment plant).

Strength Costs – Costs classified as strength related refer to the wastewater treatment function. Typically, strength-related costs are further defined as biochemical oxygen demand (BOD) and suspended solids (SS). Different types of customers may have high wastewater strength characteristics and high strength wastewater costs more to treat. Facilities are often designed and sized around meeting these costs.

Customer Costs – Costs classified as customer related vary with the number of customers on the system, e.g. billing costs.

Direct Assignment – Costs that can be clearly identified as belonging to a specific customer group or group of customers.

Customer Classes of Service – The grouping of customers into similar groups based upon usage characteristics and/or facility requirements.

generally equate to increased treatment costs.

- **Customer Related Costs:** Customer-related costs vary with the addition or deletion of a customer. Customer related costs typically include the costs of billing, collecting, and accounting. Customer-related costs may also be further categorized as actual or weighted.
- **Revenue Related Costs:** Some costs associated with the wastewater utility may vary with the amount of revenue received by the utility. An example of a revenue related cost would be a utility tax which is based on gross utility revenue.
- **Direct Assignments:** Certain costs may be directly traced to a specific customer or class of service. These costs are then "directly assigned" to that specific class of service.

For this regional wastewater cost allocation study, the above cost classifiers were utilized. For each classified cost, an equitable method of allocating the costs to the various customer classes of service was developed. The City's regional classified costs were allocated to the various customer groups using the following allocation factors.

- **Volume Allocation Factor:** Volume-related costs are generally allocated on the basis of contribution to wastewater flows. The flows from the regional customers were based upon the historical metered flows from these customers. The contribution to flow for the City was estimated based upon the known total quantity of wastewater treated at the City's plant. Inflow and infiltration (I&I) is a function of the collection system and the vast majority of I&I was assigned to the in-City local collection system. A small portion of I&I was assigned to the regional system based upon the proportion of regional conveyance to local collection.
- **Capacity Allocation Factor:** Capacity costs are those which vary with peak flow, or the maximum flow received from customers. On the City's system, average day use at the treatment plant is approximately 14 million gallons per day (MGD). In contrast to this, the peak flow capacity is nearly 28 MGD. The implication of this is the treatment plant must be sized to handle the largest peak flow capacities on the system. In developing the capacity allocation factor each customer's average day use was determined from their total annual volume. The average day use of each customer was then multiplied by a peaking factor to determine a peak day contribution. For all customers, with the exception of Brandon and Harrisburg, a 2.0 peaking factor was used (i.e. the system peaking factor). For Brandon and Harrisburg, a peaking factor of 1.0 was applied to reflect each City's use of their lagoons to minimize peak flows to the City's treatment plant. In essence, Brandon and Harrisburg have been provided with a "flow equalization credit." since they manage the their flows to the City's treatment facilities.
- **Strength Allocation Factor:** Strength-related costs are classified between biochemical oxygen demand (BOD), suspended solids (SS), and nitrogen (TKN). These types of costs are allocated to the various classes of service based upon the relative estimated strengths that each class of service contributed to the overall flow at the plant. For the most part, wastewater strengths were assumed to be of a domestic level. The exception to this was Harrisburg which treats its wastewater prior to conveying it to the City's treatment plant. In the case of Harrisburg, sampling of their wastewater was used to establish their strength levels. For Harrisburg, after treatment within their lagoons, the strength of the wastewater is in the range of 10% to 25% of the level of strength of wastewater from the other domestic level strength customers. For example the domestic level strength of BOD is assumed to be 224 milligrams/liter (mg/l). Harrisburg's sampled discharges appear to be approximately 20 mg/l or about 10% the strength levels of other customers for this

particular strength characteristic. Harrisburg, by virtue of treating their wastewater before conveying it to the City will have a lower per unit rate for strength related costs.

- **Customer Allocation Factor:** Customer costs within the cost of service study are allocated to the various customer classes of service based upon their respective customer counts. For this particular study, all customers were assumed to be one (1) customer and not the number of customer connections. The purpose of this allocation factor is primarily to allocate the costs associated with billing the regional customers, which is not a function of the number of customer connections associated with each system.
- **Revenue Related Allocation Factor:** The revenue related allocation factor was developed from the projected regional rate revenues for 2011 for each customer group. These same revenues were used within the revenue requirement analysis.

The detailed development of the allocation factors can be found on Exhibits 7 – 10 of Technical Appendix C.

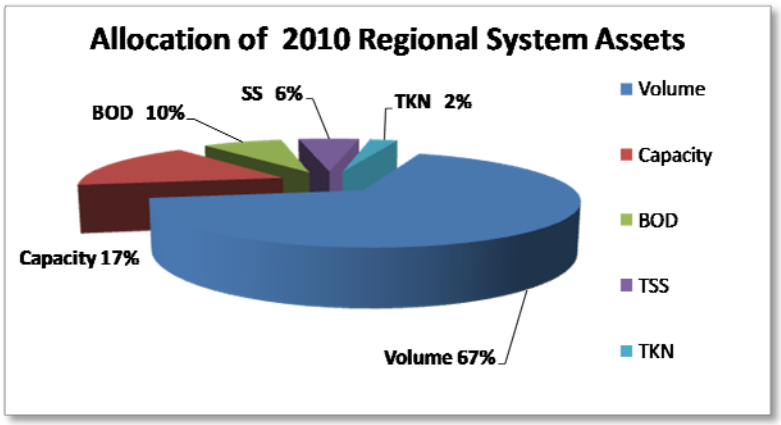
6.5.3 Step 3c – Functionalize and Classify Plant in Service and the Revenue Requirements

The City's plant in service records does not segregate the assets between regional assets and local assets. Given that, an analysis was performed to segregate the plant in service between regional and local. Provided below in Table 6-5 is a summary of the allocation of plant in service between regional and local.

Table 6-5
Summary of the Regional and Local Plant Assets
and the Development of Regional Rate Base ($000)

Category	Total Plant in Service	$ Regional	$ Local
Original Cost of Plant in Service -			
Various Plant	$292	$145	$146
Collection System	160,919	47,516	113,403
Pumping Plant	5,800	4,181	1,619
Treatment Plant	35,830	35,830	0
Tertiary Plant	18,430	18,430	0
Bio-solids Plant	8,375	8,375	0
General Plant	21	11	10
Total Orig. Cost of Plant in Service	$229,667	$114,488	$115,179
Less: Accumulated Depreciation	(91,949)	(55,278)	(36,671)
Net Plant in Service	**$137,718**	**$59,210**	**$78,508**
Plus: Working Capital	$1,040	$518	$521
Less: Contributed Capital	(10,675)	(6,363)	(4,311)
Total Rate Base	**$128,082**	**$53,365**	**$74,718**

For performing the functionalization of plant in service, HDR utilized the City's historical plant records. The historical records were the assets allocated out as local or regional wastewater utility. Once the plant assets were separated and functionalized, the analysis shifted to classification of the regional assets. The classification process included reviewing each group of assets and determining which cost classifiers the assets were related to. For example, the regional assets were classified as: volume-related, capacity-related, strength-related, customer-



related, revenue-related, or direct assignment. Provided below is a brief discussion of the classification process used.

For the regional wastewater utility the pumping plant and collection system were considered to be 100% volume related. The regional treatment plant is split 20% volume, 56% capacity, and 24% strength related factors. The tertiary plant was classified as 18% volume, 23% capacity, and 59% strength. Bio-solids were considered to be 100% strength related. Table 6-6 summarizes the plant functions classified by their related factors. A more detailed exhibit of the City's functionalization and classification of wastewater plant investment can be found in the Technical Appendix C, Exhibit 14.

Table 6-6
Summary of the Classification of Regional Wastewater Plant in Service

Category	Regional [1]	Volume	Capacity	Strength	Customer
Collection System	29.5%	100%	0%	0%	0%
Pumping Plant	72.1%	100%	0%	0%	0%
Treatment Plant	100.0%	20%	56%	24%	0%
Tertiary Plant	100.0%	18%	23%	59%	0%
Bio-solids Plant	100.0%	0%	0%	100%	0%

[1] – Represents the percentage of the regional share for the specific plant classification.

The classification of plant in service was primarily based upon a technical review provided by the City. A more detailed exhibit of the City's functionalization and classification of wastewater plant investment can be found in the Technical Appendix, Exhibit 14. The exhibit illustrates the portions of the regional system by system component.

Given the classification of plant in service, the focus shifts to the functionalization and classification of the regional revenue requirement. Given that the City will earn a fair return on their investment to serve the regional customers, the previously developed "cash basis" regional revenue requirement needed to be converted to a "utility/accrual basis" revenue requirement. This aspect of the regional analysis has been summarized below in Table 6-7.

Table 6-7
Converting the 2011 Regional Revenue Requirement from a "Cash Basis" to a "Utility/Accrual Basis"

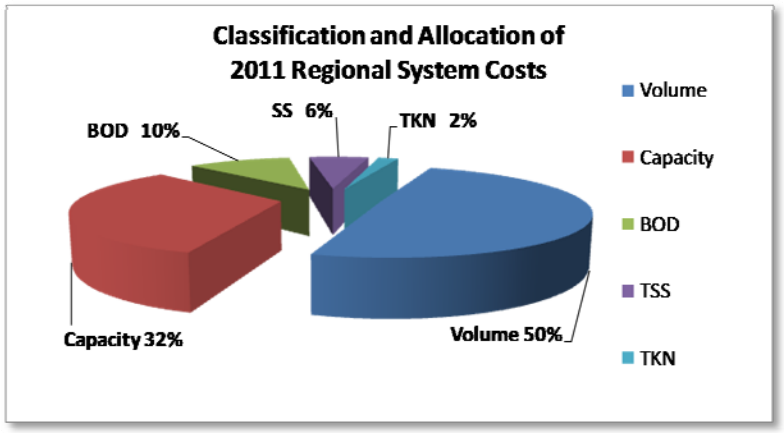
Cash Basis Components	Total	Utility/Accrual Components	Total
Total O&M Expenses	$5,504	Total O&M Expenses	$5,504
Net Debt Service	4,280	Annual Depreciation Exp.	3,555
CIP Funded From Rates	3,555	Return on Rate Base [1]	4,280
Less: Misc. Revenues	(240)	Less: Misc. Revenues	(240)
Total Net Revenue Requir.	**$13,099**	**Total Net Revenue Requir.**	**$13,099**

[1] Calculation of Return on Rate Base –
Return Component/Rate Base = Rate of Return
$4,280 / $53,365 = 8.02%

As can be seen in Table 6-7, the cash basis regional revenue requirement was previously calculated as $13.1 million. In converting from the "cash basis" to the "utility/accrual basis" regional revenue requirement, the total amount is unchanged (i.e. $13.1 million). What has changed are the capital-related components contained within the utility/accrual basis revenue requirement. In developing the utility/accrual basis revenue requirement, the amount of O&M, annual depreciation expense and miscellaneous revenues are "known" values. Therefore, the return on rate base component is used to balance to the "cash basis" revenue requirement. Once the return component of $4.2 million has been determined, the return on rate base can be calculated. In this case, the overall system rate of return on rate base is 8.02%.

The establishment of the "utility/accrual basis" revenue requirement for the Regional system is a slightly different approach than the approach that may be used by a private utility which is regulated by a Public Utility Commission. In the case of a private utility, the Commission, as the independent regulatory body, determines the appropriate and fair rate of return (e.g. 8.02%). At that point, the utility is able to calculate their return component (i.e. 8.02% rate of return x rate base). In this case, just the opposite has occurred in the regional approach. The Regional system is not regulated by a Public Utility Commission that can independently determine an overall rate of return. Given that, the regional return component (i.e. $4.2 million) is determined based upon the "cash basis" revenue requirement and the overall rate of return on rate base is derived. This approach is appropriate for a City or regional system that is not regulated by a Public Utility Commission. By converting from the "cash basis" revenue requirements, it is presumed that the City has established a "fair" revenue requirement, absent any decisions concerning a "fair" return on rate base or plant investment. Rather, as will be recalled, the "cash basis" revenue requirement utilizes debt service and capital improvements funded from rates for the capital investment portion of the analysis.

Once the revenue requirements were converted to the utility/accrual basis, the costs excluding the return component were classified between the various cost components (e.g. volume, capacity, strength, etc.). The revenue requirements, and in particular, the operating expenses, are generally functionalized and classified in a manner similar to the corresponding plant account. For example, operation of the treatment plant is typically classified in the same manner (classification percentages) as the plant account for treatment plant. This approach to classification of operating expenses was used for this analysis. The detail of the functionalization and classification of the regional revenue requirement can be found on Exhibit 17 of Technical Appendix C.



6.5.4 Step 3d – Allocate Rate Base to the Regional Customers

Given the classified rate base, the rate base can be allocated to the various regional customers based upon the previously developed allocation factors (Step 3b). Provided below in Table 6-7 is a summary of the allocated rate base for each regional customer.

Table 6-8
Summary of the Allocation of Rate Base [Net Plant Investment] ($000s)

Regional Customer	Allocated Rate Base [1]	% Total
City of Sioux Falls	$50,050	93.8%
City of Brandon	1,048	2.0%
City of Harrisburg	1,446	2.7%
Prairie Meadows Sanitary District	398	0.7%
Renner Sanitary District	423	0.8%
Total Rate Base	$53,365	100.0%

[1] – Allocated rate base is multiplied by the appropriate rate of return to determine each regional customer's return component

6.5.5 Step 3e – Allocate Regional Revenue Requirements to the Regional Customers

Similar to the process used to allocate rate base, the regional revenue requirement (excluding the return component) was allocated to the various regional customers. Provided below is a summary of the allocated regional revenue requirement, before the return component.

Table 6-9
Summary of the Allocation of the Regional Revenue Requirement
Before the Return Component ($000s)

Regional Customer	Allocated Costs [1]	% Total
City of Sioux Falls	$8,313	94.3%
City of Brandon	159	1.8%
City of Harrisburg	211	2.4%
Prairie Meadows Sanitary District	66	0.7%
Renner Sanitary District	70	0.8%
Total Rev. Req. Before Return	$8,819	100.0%

[1] – Allocated costs include O&M, depreciation expense and miscellaneous revenues. Excludes return on rate base. Return on rate base is added to the regional revenue requirement within the summary table (Step 3f).

6.5.6 Step 3f – Summarize the Results of the Regional Cost of Service Analysis

The final step of the regional cost of service analysis is to add in a return component for each customer and summarize the results. Within Step 3c, the utility basis methodology was discussed and the concept of fair return on the City's investment to serve the regional.

For the City's regional feasibility study, the regional revenue requirement for 2011 was functionalized and classified. As noted earlier, a cash basis revenue requirement was utilized, which was comprised of operation and maintenance expenses, debt service, and capital projects funded from rates. For the regional cost of service, a "utility" basis methodology was selected to fairly allocate revenues and expenses to the regional customer classes of service.

Under the "utility" basis methodology, the City, as the owner of the system, is entitled to a "fair" rate of return on their investment to serve wholesale (contract) customers. Under the regional approach, the City remains the owner of the regional system, and thus is entitled to earn a "fair" return on the investment needed to serve the regional customers. In Table 6-7, it was determined that the overall rate of return to be earned by the regional system for this particular time period was 8.02%. The 8.02% rate of return represents the overall system average and not necessarily rate of return for City of Sioux Falls customers and other regional (non-owner) customers. To determine the rate of return for the other (non-owner) regional customers a two-part test was established. The two-part test to determine the other regional customer rate of return is as follows:

- Other (Non-Owner) Regional Customer Rate of Return Shall be the Greater Of:
  - Cost of Debt (%) + 3%, or
  - City of Sioux Falls Rate of Return + 3%

In establishing the rate of return for non-owner regional systems, their rate of return should always be greater than the City of Sioux Falls customers. However, that does not necessarily imply that regional non-owner customer rates will be greater than the City's. As will be seen later, depending upon specific circumstances, a non-owner can have regional rate that is less than the City's regional rate. This is primarily a function of the specific strength characteristics of the various regional customers and the peak capacity contributions (equalization) of each regional customer.

For this particular study, the rate of return for the non-owner regional customers used the City of Sioux Falls rate of return + 3%. The City of Sioux Falls rate of return was 7.83%, resulting in a non-owner regional rate of return of 10.83%. Provided below in Table 6-10 is a summary of the total allocated regional revenue requirement.

Table 6-10
Summary of the Allocation of the Total Regional Revenue Requirement ($000s)

Regional Customer	Allocated Costs [1]	Return Component	Regional Total	% Total
City of Sioux Falls	$8,313	$3,921	$12,234	93.4%
City of Brandon	159	114	273	2.1%
City of Harrisburg	211	157	367	2.8%
Prairie Meadows Sanitary District	66	43	109	0.8%
Renner Sanitary District	70	46	116	0.9%
Total Rev. Requir.	$8,819	$4,280	$13,099	100.0%

The above table provides an indication of the total allocated costs. A comparison was developed between the current rates being paid and the allocated costs. This provides a better understanding of the potential impact of the regional cost of service methodology. Table 6-11 provides a summary of the regional cost of service analysis.

Table 6-11
Summary of the Allocation of the Total Regional Revenue Requirement ($000s)

Regional Customer	Present Rate Revenues	Allocated Costs	$ Difference	% Difference
City of Sioux Falls	$12,454	$12,234	($220)	(1.8%)
City of Brandon	153	273	120	78.1%
City of Harrisburg	473	367	(105)	(22.3%)
Prairie Meadows Sanitary District	127	109	(17)	(13.8%)
Renner Sanitary District	122	116	(6)	(4.7%)
Total	$13,328	$13,099	($229)	(1.7%)

As can be seen in Table 6-11, there are differences between the rates currently being paid and the allocated regional revenue requirement. These differences can be better understood when the present rate revenues and allocated costs are converted to a per unit cost.

6.6 Step 4 – Calculate Average Unit Costs

The forth and final step takes the allocated regional revenue requirement and converts them into average unit costs (i.e. cost-based rates). A summary of this step is described below.

Step 4 Develop unit costs/rate designs for the various Regional customers	
Step 4a	For each regional customer, divide the classified regional revenue requirements by the billing units (e.g. volume, revenue, number of customers, etc.) to determine the average unit cost for that particular customer.

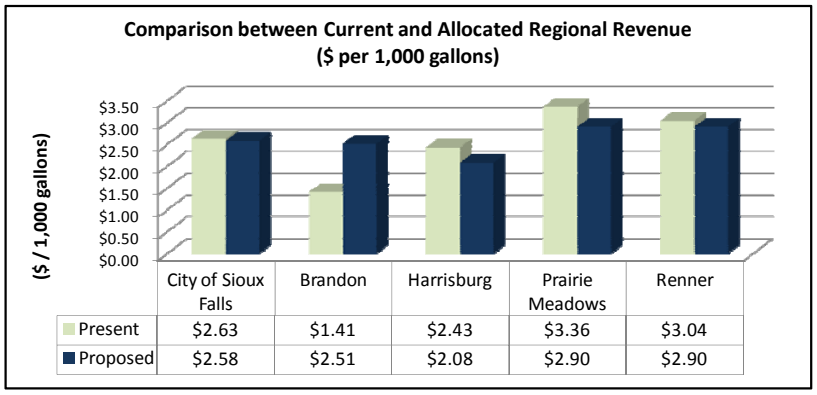
6.6.1 Step 4a - Determination of the Regional Average Unit Costs

For each regional customer, the allocated revenue requirement was divided by the total annual volume. This calculation produced the average unit cost for each regional customer.

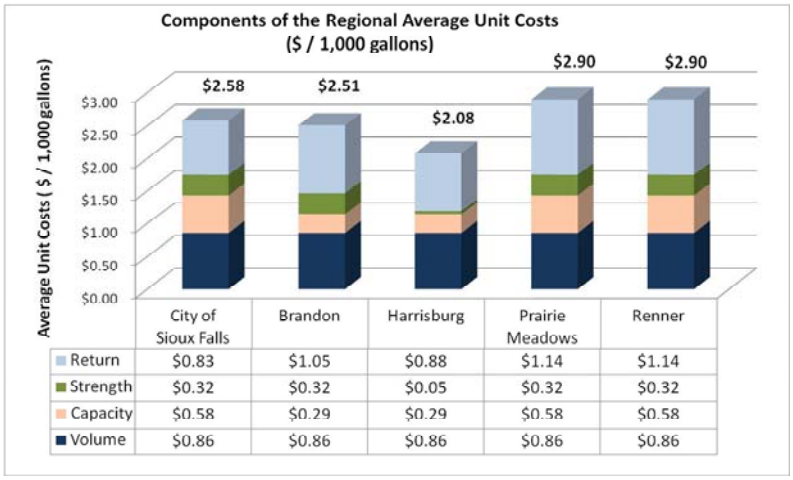
Table 6-12
Summary of the Average Unit Costs ($/1,000 Gallons)

Regional Customer	Present Rate Revenues	Allocated Costs
City of Sioux Falls	$2.63 / 1,000 gal.	$2.58 / 1,000 gal.
City of Brandon	1.41	2.51
City of Harrisburg	2.43	2.08
Prairie Meadows Sanitary District	3.36	2.90
Renner Sanitary District	3.04	2.90
Total	$2.61 / 1,000 gal.	2.57 / 1,000 gal.

As can be seen, when comparing the average unit revenue and the unit costs for the allocated regional revenue requirement the relationships between the various customers becomes clearer. In Table 6-11, the City of Brandon indicated the need for a fairly substantial rate adjustment under regional rates. In viewing Table 6-12, it is clear that the level of the adjustment is not necessarily driven by the allocation process of the regional revenue requirement, but rather, the low rate currently being paid by the City of Brandon. It should be noted that under the regional concept, regional customers are allocated an equitable proportion of the regional collection system, regardless of location. It appears that historically, Brandon was provided a lower rate based upon their location to the City's wastewater treatment facilities.



It should also be noted that the rates for Brandon and Harrisburg are less than the City of Sioux Falls. This is a function of two items. First, both Brandon and Harrisburg have the capability at the present time to control their peak capacity flows to the City's wastewater treatment plant. Given that, within the cost of service study, it has been assumed that both Brandon and Harrisburg have a lower capacity peaking factor than the other



regional customers on the system who do not have the ability to control their peak flows (i.e. provide equalization). The other factor for Harrisburg that produces a lower rate is the issue of the strength of wastewater. As noted in the discussion of the strength allocation factors, Harrisburg has the ability to significantly reduce the strength levels of their wastewater by utilizing their lagoons and holding their wastewater for approximately 30 days. Based upon sampling results of their wastewater, this appears to reduce the strength of their wastewater to approximately 10% of the strength of the other regional customers.

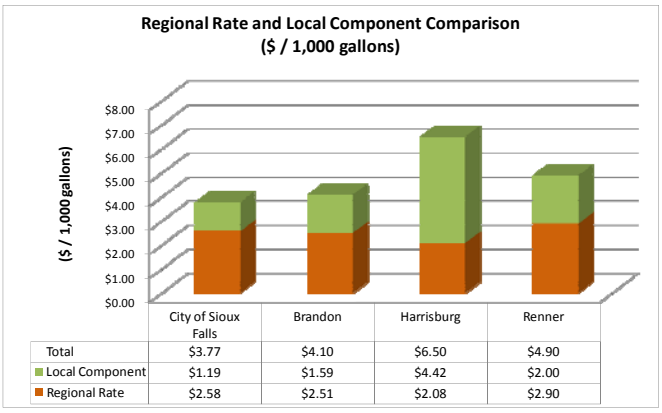
Table 6-13
Summary of the Credits for Equalization and Reduced Strength ($/1,000 gallons)

Regional Customer	Unit Cost Before Credits	Capacity (Equalization) Credit	Strength Credit	Unit Costs After Credits
City of Sioux Falls	$2.58	$0.00	$0.00	$2.58
City of Brandon	2.90	(0.39)	0.00	2.51
City of Harrisburg	2.90	(0.39)	(0.43)	2.08
Prairie Meadows Sanitary District	2.90	0.00	0.00	2.90
Renner Sanitary District	2.90	0.00	0.00	2.90

As can be seen, absent any credits, the non-owner regional customers would all have the same regional rate. The credits provide the level of equity needed to reflect the benefits that Brandon and Harrisburg provide to the City for equalization (capacity reduction) and reduced wastewater strength levels. These credits should only be applied if Brandon and Harrisburg continue to operate their treatment facilities and provide benefit to the City.

For any new (future) customers connecting to the system, the ability to receive credits should be considered. The amount of the credit will vary depending upon the specific characteristics of the new customer connecting to the City's system.

To develop the local retail sewer rate, each local jurisdiction will also need to add their local collection and administrative overhead costs to the regional rates noted above. The local rate setting process shall continue to be the responsibility of the local governing body. However, in order to better understand the potential relationship between regional and local components, this study attempted to place the regional rates in the context of both the local component and the current retail rates being charged by each entity. This may provide a better understanding the ultimate retail sewer rate that may be charged to each entity's customers.



6.7 Developing Final Proposed Regional Rates

This report has developed a regional cost allocation methodology to help the City and potential regional customers understand the implications of regionalization. The cost allocation methodology allocated the total regional revenue requirement to each regional customer and average unit cost rates were developed. While average unit cost rates could certainly be

adopted and utilized as the regional rate, other rate design considerations may be taken into account in developing the final proposed regional rates.

Typically, for a regional or wholesale rate, the rate may be comprised of both a fixed and variable charge. If revenue stability is an important consideration in the rate setting process, the City may want to develop a final regional rate design that contains both a fixed (minimum bill) and variable rate component. The average unit costs, as developed herein, are 100% volumetric related.

6.8 Summary of the Regional Wastewater Rate Study

The objective of this study was to examine the issue of regionalization and to develop a rate methodology to establish equitable and cost-based regional wastewater rates. This section of the report utilized the various elements leading up to the development of the analysis (e.g. regional principles, financial policies, conceptual methodology, etc.) and provided an equitable allocation of costs for test year 2011.

This analysis should provide the City with the basis to better understand regionalization and the potential rate relationships under a regionalization model.

Section 7 – Looking Ahead – Regionalization and Potential New Customers

7.1 Introduction

This study has been developed based upon the existing customers of the City. Should the City determine that regionalization is an appropriate policy decision, it is important for the City to have a full understanding of the full relationship of the various analytical components developed as a part of this study. This section of the report will discuss the various considerations of adding a new regional customer.

7.2 Benefit of New Regional Customers

There are numerous potential benefits from regionalization and the addition of new regional customers. In considering the potential benefits to the City of regionalization, one important criterion for the City of Sioux Falls City Council may be the financial/economic benefit of regionalization. While earning a fair rate of return on investment to serve outside City customers is one financial benefit, it likely is not as critical as the potential "economies of scale" from a regional system. Should the regional system grow and add new regional customers, the fixed costs of the system will be spread over more customers. Thought of another way, every dollar collected from a new regional customer is roughly a dollar less that needs to be collected from a City of Sioux Falls customer. For example, adding a new regional customer of approximately the size of the City of Brandon could potentially reduce the City and regional customer rates by 4¢ to 5¢ per 1,000 gallons. All customers (City and outside regional) will benefit from the addition of new customers since costs (and benefits) are equitably allocated across all customers. In addition, for each new customer connecting to the regional system, system development charges (SDCs) will potentially be collected if SDCs are made a part of the process of connecting to the regional system. Under the City's current cost recovery fees, customers outside the City are generally not assessed these fees. In summary, the addition of customers to the regional system will have wide-spread benefits to the City, well beyond the rate of return for serving the outside City regional customers.

7.3 Addition of a New Regional Customer

This study was driven in part by the need for a more equitable approach of adding new regional customers. At the same time, the City recognized that a number of small surrounding communities may be facing significant regulatory hurdles or infrastructure costs such that regionalization becomes a good option for both the City and potential regional customer. As a customer approaches the City, there should be a formal process to review the impact of the new regional customer and allow the potential regional customer to make an informed decision. Provided below are the currently envisioned steps to adding a new regional customer. Should the City desire to more formally pursue regionalization, these steps or the process of adding new regional customers can be refined.

Step 1 – Formal Letter of Interest – The City has been very clear that a potential customer has the option of joining the regional system. With that in mind, the City will not "pursue" customers. Rather, it only seems appropriate that any potential interested regional customer

should provide the City with a formal letter of interest. Given the extent of the activities to be undertaken after receiving the formal letter of interest, the letter of interest should be authorized by a formal (non-binding) vote of the governing body of the utility. Ultimately, the governing body of the utility will need to either accept or reject regionalization and this approach would formally begin the process for the utility's governing body.

Step 2 – Gather Key Data and Information – The City will need to evaluate each potential new customer to determine the system development charge (SDC) "buy-in" and the projected usage rates. The City should develop a formal standardized written data/information request for any customer requesting service and having provided a formal letter of interest. Where data and information may not be available, the City should use their best judgment to determine an appropriate assumption (e.g. strength of wastewater, etc.).

Step 3 – Analysis of Potential New Regional Customer – From the information gathered in Step 2, the City should analyze the potential new customer. Among the items to be analyzed are the following:

- Available capacity to serve the new customer.
- Determine the point(s) of connection on the regional system, or the options for the point(s) of connection. It is the responsibility of the potential regional customer to determine the cost of any extensions needed to connect to the regional system and evaluate the cost/benefits of joining the regional system.
- Determine the number of current equivalent residential units (ERUs) and the dollar amount of the system development charge payment (SDC x equivalent residential units) at the time of joining the regional system.
- Determine the regional rate at the time of connection (state a specific date for connection or an expiration date for the rate offer).
- Project (but not guarantee) the regional rate for a period of five-years to provide the regional customer with an understanding of any adopted or anticipated future regional rate adjustments.
- Draft of regional customer contract and any unique conditions (e.g. equalization).

Step 4 – Formal Written Response/Offer - The City should draft a formal response for review and approval by the City of Sioux Falls City Council. The approval by the City Council of the written response indicates the City's willingness to accept the customer as a new regional customer. If approved by the City of Sioux Falls City County, the formal written response/offer is forwarded to the potential new regional customer.

The formal written response would detail the terms and conditions for regionalization. These terms and conditions would address, among a variety of items, the issue of the timeline for payment of SDCs and the responsibilities of the parties for their ownership and maintenance of their facilities. This letter would also contain a draft of the proposed regional customer contract.

Step 5 – Formal Acceptance of Regionalization Offer – The potential regional customer will review the formal response from the City, along with the proposed regional contract. Formal acceptance of the regionalization offer would culminate in a signed agreement between the new regional entity and the City.

As noted above, this formal process may be modified to provide the most efficient and responsive method of addressing requests for regionalization. A formal step-wise process simply creates a uniform manner of addressing these requests in an equitable manner.

7.4 Summary

This section of the report has provided a framework for the potential addition of new regional customers. In providing this administrative framework, the City will have a clear path for analyzing potential new customers and creating equity between the existing regional customers and the potential new regional customer.

Technical Appendices

Appendix A
Wastewater Utility Financial Policies

August 3, 2010

Mr. Mark Perry, P.E.
Principal Engineer - Sanitary Sewer
City of Sioux Falls
City Hall - Public Works Department / Engineering Division
224 W. 9th Street
Sioux Falls, SD 57104

Subject: Draft of City's Financial Policies and Guidelines for Regional and Retail Wastewater Rate Setting

Dear Mark:

Enclosed please find a revised draft of the Regional and Retail Wastewater Financial Policies and Rate Setting Guidelines for the City of Sioux Falls. As part of the wastewater regionalization study, HDR was to review the City's existing financial/rate policies and practices as they may relate to the regionalization study. As you know, the City currently has very limited policies and practices in this area. HDR initially drafted these policies and the City has provided their comments and feedback to us. This version of the policies and guidelines reflect those discussions. In those areas where a choice is to be made, HDR has indicated the City's initial choice by underlining their preferred option or choice.

The purpose of establishing these financial/rate setting policies is to provide clear policy direction and guidance on a number of key financial parameters. By establishing these financial and rate setting policies, the City will be focused on prudent financial planning criteria, while at the same time, providing a certain level of consistency in the financial planning and rate setting process from year to year. The proposed policies and guidelines should be reviewed and updated as necessary to remain relevant and appropriate.

To aid in the rate setting process we have developed a proposed set of financial/rate setting policies. In developing these proposed policies, HDR has used the current financial policy recommendations established by the Governmental Finance Officers Association (GFOA), the National Advisory Council on State and Local Budgeting (NACSLB), and current financial/rate setting policy examples from other utilities and municipalities.

The GFOA website (http://www.gfoa.org/services/nacslb/index.htm) details "The Best Practices in Public Budgeting" and also provides examples from municipalities. There are

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twelve elements within the four main principles listed in the "The Best Practices in Public Budgeting". The principles are listed below:

- Principle I - Establishing Broad Goals (Elements 1-3)
- Principle II - Develop Approach (Elements 4-7)
- Principle III - Develop Budget (Elements 8-10)
- Principle IV - Evaluate Performance (Elements 11-12)

HDR's area of focus for City was the financial policies in Principle II, Elements 4 and 5. Element 4 is Adopt Financial Policies, while Element 5 is Develop Programmatic, Operating, and Capital Policies and Plans. As noted previously, the importance in establishing financial/rate setting polices for a municipality is to provide guidelines and definitions for the City to operate in a financially prudent manner.

For purposes of the regionalization study, these financial/rate setting policies establish an initial starting point in our stakeholder meetings. In addition to these financial policies there is also a set of regional guidelines that will be used to establish regional cost allocations and regional rates.

Thanks for your assistance in the development of these financial policies and rate setting guidelines.

Sincerely,
HDR Engineering, Inc.

Tom Gould
Vice President and National Technical
Director of Financial Planning and Rates

City of Sioux Falls
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).

HDR has adapted the GFOA principles and framework to establish written financial policies to guide the financial planning and rate setting process for the wastewater utility, particularly as it relates to establishing a regional utility. This discussion paper will review the suggested framework for establishing written financial policies and guidelines for the wastewater 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.[8] 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 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.

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

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 utilities, the focus will be on Elements 4 and 5. Within Elements 4 and 5, GFOA has segregated various policies into "practices." These various practices provide 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 this study is specifically focusing on the City wastewater 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 wastewater 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 proposed specific financial and rate setting policies for the City of Sioux Falls wastewater 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 wastewater utility.

The adoption of these financial policies will provide a strong foundation for the long-term financial sustainability of the wastewater utility and will provide the regional customers and the outside financial community with a better understanding of the City's commitment to managing the wastewater 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. WASTEWATER UTILITY FINANCIAL/RATE SETTING POLICIES

1.1 Purpose of the Wastewater 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 wastewater 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 wastewater 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 wastewater 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 Wastewater Rates and Fees

The City's wastewater 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 wastewater utility.

RATE SETTING POLICIES:

The City shall establish cost-based rates and fees using "generally accepted" rate setting and costing methodologies. The wastewater 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 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 wastewater 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 wastewater 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 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., Water Environment Federation, etc.).
3. The wastewater 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 City Council during the rate setting process.

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

1. Wastewater rate designs will be reflective of system needs, and also reflect the greater public purpose and policy goals of the 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 Wastewater 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 applicable 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 both the value of wastewater treatment and collection (regional interceptors). 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 wastewater system. For purposes of determining and administering SDCs, the City's wastewater 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 capacity" is a "unit of capacity").

E. **Establishing Final SDCs -** The City Council shall establish 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 wastewater 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 wastewater utility.

D. **Master Plan and SDCs -** Every three to six years, or whenever the comprehensive master plan for the wastewater 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 wastewater 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 wastewater 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. For each utility, the minimum total operating reserve level will vary based upon each utility's application of the above goals and outcomes. The minimum levels for the wastewater utility shall be set at 25% of the annual operating budget (i.e. approximately 90 days of operating expenses) and, for financial planning and rate setting purposes, shall be consistent with the annual utility rate model. 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 wastewater 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 likely 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 capital reserves will be further defined as:

   - Renewal/Replacement Capital Reserve –The City should attempt to maintain a capital reserve approximately equal to one-year of renewal/replacement type projects.
   - Equipment Replacement Reserve – The City shall strive to develop a reserve for the purpose of funding equipment replacements. This will provide funding in years when vehicles and other equipment must be purchased without excessively depleting fund balance. The minimum reserve will take into consideration the need to smooth rates to avoid fluctuations, and will be consistent with each utility's specific replacement schedule.

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 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 by the City Council periodically to ensure they are consistent with City goals.

1.4 Debt Issuance and Debt Management

The issuance of long-term debt is a valuable funding resource for the wastewater utility. Used appropriately and prudently, long-term debt can help minimize the wastewater utility's rates over time. The wastewater 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 wastewater 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 wastewater 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 wastewater 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 wastewater 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 wastewater 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

The City will follow and comply with all statutory debt limitations imposed by the State of South Dakota. All City/wastewater 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 wastewater utility should not exceed 50% debt/50% equity.

B. **Non-Revenue Bonded Debt Capacity** - For non-revenue bonded debt issues, the City's Chief Financial Officer shall provide a recommendation on debt level and capacity for the wastewater 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 wastewater 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 wastewater 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 wastewater utility. The wastewater utility shall not subsidize other City-owned non-wastewater utilities/facilities.

A. **Self-Supporting** – The wastewater 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 wastewater utility shall be funded at a level that will preserve the intended life and functional requirements of the wastewater system.

D. **Evaluation and Monitoring of Costs** - Costs shall be evaluated and monitored to ensure that the wastewater 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 wastewater 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 ($).

G. **Strive for Rate Stability** - Rate stability reinforces that costs are being managed and controlled. Wastewater 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 wastewater 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 fund, the wastewater 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

2.0 Programmatic, Operating, and Capital Policies and Plans

The wastewater 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 Meet Regulations and Standards -** The City will adequately fund wastewater utility costs for meeting current industry standards and regulations (e.g., Clean Water Act, CSO, TMDL, etc.) in the annual financial review.

B. **Capital Improvement Plan -** The wastewater 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 wastewater 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 wastewater utility's capital improvement program will consider mandated capital, growth-related capital, and renewal and replacement capital.

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

The wastewater 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 wastewater 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 wastewater 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 wastewater 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 wastewater 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.

Appendix B – Regional Wastewater Conceptual Rate Setting Methodology

Overview of the City of Sioux Falls Regional Wastewater System Conceptual Wastewater Rate Setting Methodology

Introduction

The City of Sioux Falls owns and operates a regional wastewater treatment and conveyance system. The development of regional wastewater rates 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 customers served.

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 wastewater 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 City expanding its role as a greater regional provider of wastewater treatment. This conceptual methodology has attempted to establish a process 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

The establishment of local rates shall remain at the local level. This conceptual framework is intended to determine only regional rates, and all decisions concerning the establishment of local rates (i.e. regional costs + local costs) shall remain the responsibility of the local community or utility.

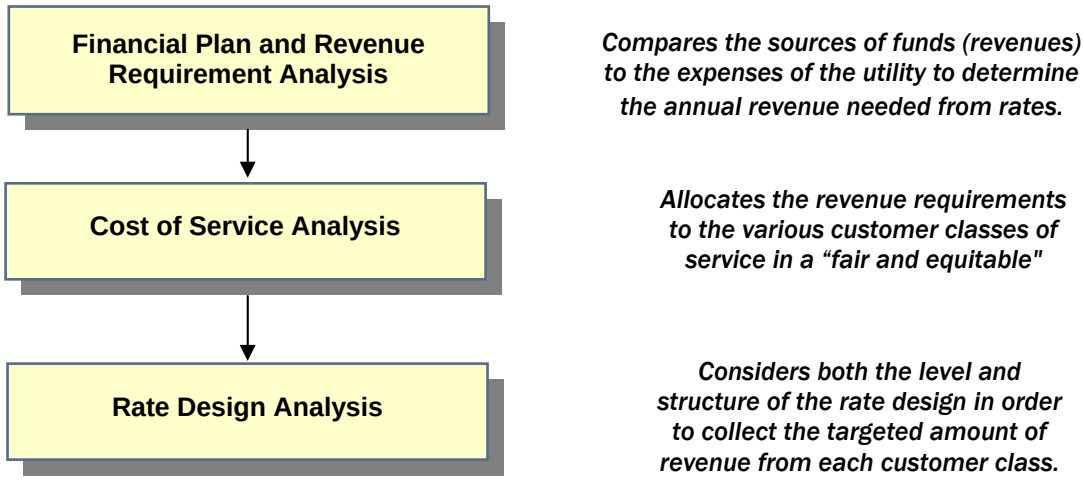
Defining "Generally Accepted" Rate Setting Methods

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 wastewater rate setting manual: *Financing and Charges for Wastewater Systems*,[9] Manual of Practice Number 27 (MOP 27), published by the Water Environment Federation (WEF), which is currently considered the industry standard for rate setting for wastewater utilities. The basic principles and methodologies outlined in the WEF MOP 27 manual have been used as a starting point and then tailored to reflect the unique characteristics of the regional wastewater 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



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

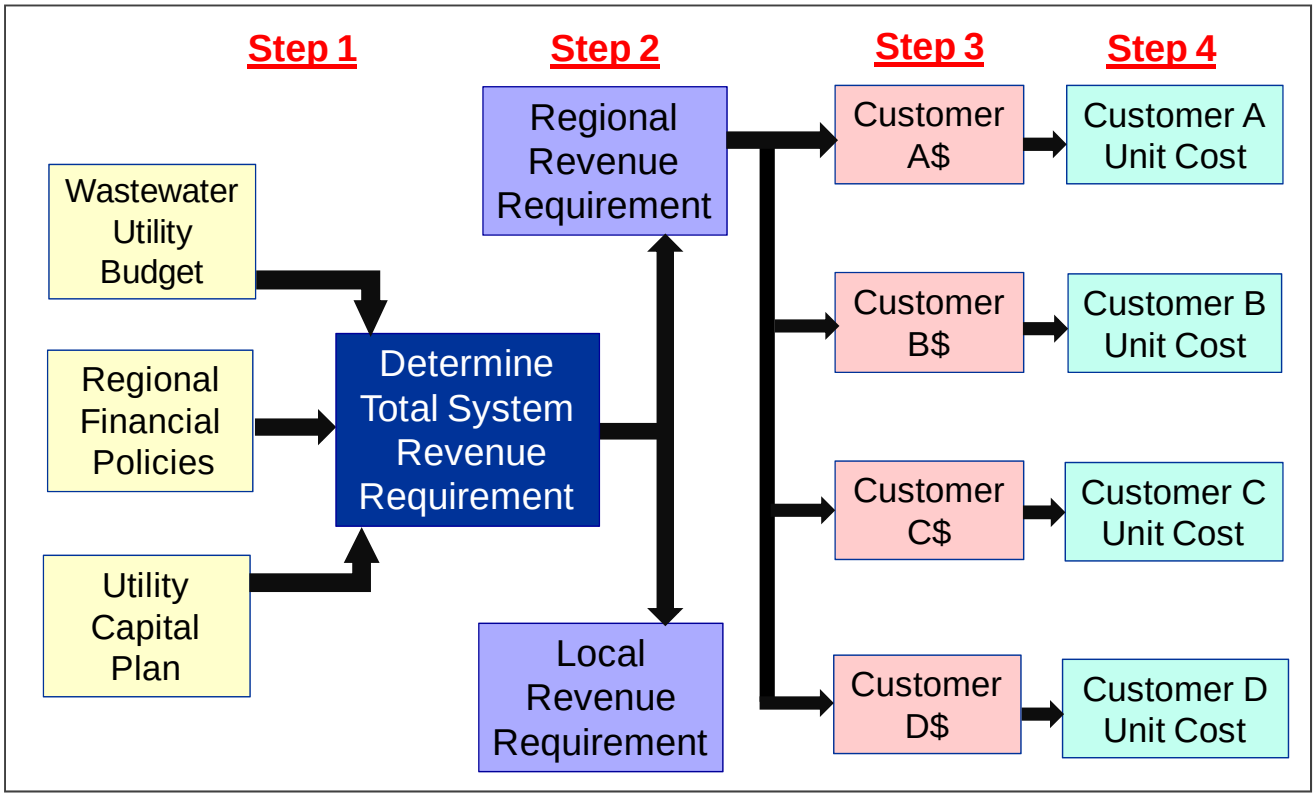
[9] Water Environment Federation, Financing and Charges for Wastewater Systems, Manual of Practice No. 27, 2005.

Overview of the Regional Methodology

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

Step 1	**Determine revenue requirements for the City of Sioux Falls wastewater system**
Step 2	**Allocate (assign) the City's revenue requirement between Regional and City retail (local costs)**
Step 3	**Allocate the Regional revenue requirement between the Regional customers**
Step 4	**Develop unit costs/rate designs for the various Regional customers**
Step 5	**Determine surcharges for exceeding average strength loadings**

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



* Step 5 is surcharges when customers exceed average strength loadings

As can be seen, the analysis develops regional wastewater rates by customer. At this point in time it is unclear if customers can be grouped in a single homogeneous regional rate. The cost of service analysis considers the various usage characteristics of the customers (e.g. flow and strength of wastewater). The interceptor system will be considered a unified system, but the cost of wastewater treatment may vary by customer. An over-arching goal of the regionalization study is to have regional rates which are easy to administer, yet still fair and equitable. A more detailed discussion and overview of the various steps is provided below.

Detailed Regional Rate Setting Methodology

The five 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 WEF MOP No. 27 manual and the best available information concerning the City's data and records.

Step 1 – Determine Revenue Requirements for the City of Sioux Falls Wastewater 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 wastewater 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 Sioux Falls wastewater 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 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 developed 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 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, equal to a minimum of depreciation expense.

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[10] 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 WEF Manual of Practice (MOP) No. 27.

[10] 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

Sioux Falls Regional Wastewater Rate Calculations

Step 1 Determine the Total Revenue Requirements for City of Sioux Falls Wastewater 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 wastewater 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 costs

Line No.	Account Description	Approved Budget 2011	Projected Years 2012	2013	2014	2015	Notes
	+ Operation and Maintenance Expenses - [1]						
1	480.11.01 Regular Employee Wages	$#,###	$#,###	$#,###	$#,###	$#,###	Input from budget and escalated
2	480.11.02 Regular Employee Overtime	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
3	480.13.01-10 (include all O&M account detail)	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
4	480.22.01-11 Professional Services	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
5	480.28.01-11 Utilities	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
6	Incremental or Increased Service Level O&M	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
7	***Total Operation and Maintenance Expenses***	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum of Lines 1 - 6
	+ Taxes and/or Transfer Payments						
8	- Tax A - As applicable	$#,###	$#,###	$#,###	$#,###	$#,###	Input from budget and escalated
9	- Tax B - As applicable	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
10	- Transfer Payment 1 - As applicable	#,###	#,###	#,###	#,###	#,###	Input from budget and escalated
11	**Total Taxes and Transfer Payments**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum of Lines 8 - 10
	+ Debt Service Payment						
12	- Regional Debt (P+I)	$#,###	$#,###	$#,###	$#,###	$#,###	From Regional Debt Schedule
13	Less: Regional SDCs (≤ 50% of Reg. SDCs Received)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	Input based upon avail. of funds
14	**Net Regional Debt Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 12 - Line 13
15	- Local (Collection) Debt (P+I)	$#,###	$#,###	$#,###	$#,###	$#,###	From Local Debt Schedule
16	Less: Local SDCs (e.g. Local Portion SDCs Received)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	Input based upon avail. of funds
17	**Net Local (Collection) Debt Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 15 - Line 16
	+ Capital Improvements Funded From Rates [2]						
	- Regional Capital Improv. Funded From Rates						
18	Existing Regional Assets	$#,###	$#,###	$#,###	$#,###	$#,###	CIP (Step 1c); ≥ Annual Deprec. Exp.
19	New Expansion Projects	#,###	#,###	#,###	#,###	#,###	CIP (Step 1c); ≥ Annual Deprec. Exp.**[3]**
20	- Local (Collection) Cap. Improv. Funded From Rates	#,###	#,###	#,###	#,###	#,###	CIP L. 24 (Step 1c); ≥ Annual Deprec. Exp.
21	**Total Capital Improvement Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum Lines 18 - 20
22	**+ Change In Working Capital**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	May be + or - change
23	**+ Other Expenses**	#,###	#,###	#,###	#,###	#,###	If not included above
24	**= Total Wastewater System Revenue Requirement**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	L. 7 + 11 + 14 + 17 + 21 + 22 + 23
25	– Less: Miscellaneous Revenues	$#,###	$#,###	$#,###	$#,###	$#,###	Input Misc. (Non-Rate) Revenues
26	**= Net Revenue Requirement**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 24 - L 25

[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 treatment, regional conveyance, local collection, customer accounting, customer service and general and administrative costs.

[2] - See Table 3 (step) 1C for the calculation of capital improvements funded from rates. Line 23 and 24 of Table 3 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] - Transition into annual depreciation expense for any new facilities added to the system in future years.

Table 2 – Linkage Between the City's Revenue Requirement Methodology and the Regional Financial and Rate Setting Policies and the WEF MOP No. 27

Sioux Falls Regional Wastewater Rate Calculations

Step 1 Determine the Total Revenue Requirements for City of Sioux Falls Wastewater System

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

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

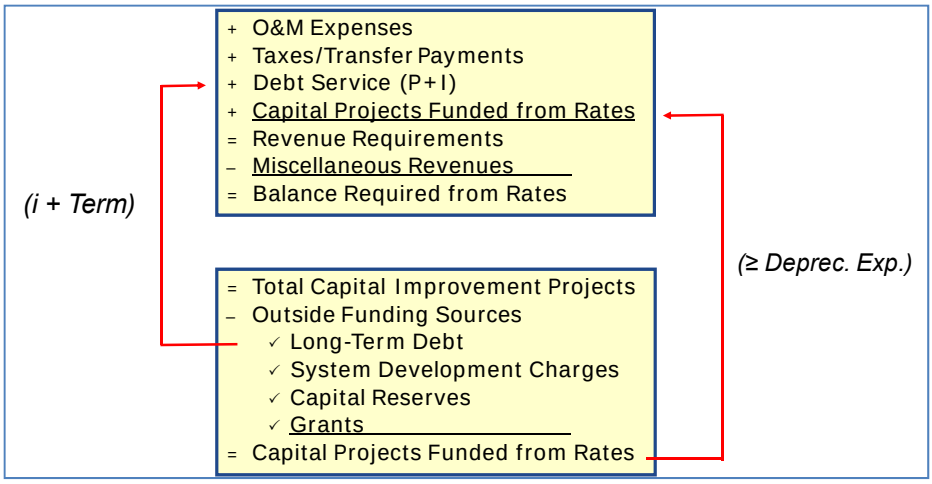
Line No.	Description	Approved Budget 2011	Five-Year Projection	Reference: WEF MOP 27	Reference: Regional Policy
	+ **Operation and Maintenance Expenses - [1]**		Cash Basis Rev. Req.	P.76 - 84	1.2(A.) 1
1	480.11.01 Regular Employee Wages	$#,###	Escalation of Costs	P. 78 - 80	
2	480.11.02 Regular Employee Overtime	#,###			
3	480.13.01-10 (include all O&M account detail)	#,###			
4	480.22.01-11 Professional Services	#,###			
5	480.28.01-11 Utilities	#,###			
6	Incremental or Increased Service Level O&M	#,###		P. 80	1.2(A.) 3
7	***Total Operation and Maintenance Expenses***	**$#,###**			
	+ **Taxes and/or Transfer Payments**			P. 77, 81 83	
8	- Tax A - As applicable	$#,###			
9	- Tax B - As applicable	#,###			
10	- Transfer Payment 1 - As applicable	#,###	Inclusion of Intrdept.Trnsfer Pmt.	P. 78	
11	**Total Taxes and Transfer Payments**	**$#,###**			
	+ **Debt Service Payment**			P. 80, 84	
12	- Regional Debt (P+I)	$#,###			
13	Less: Regional SDCs (≤ 50% of Reg. SDCs Received)	(#,###)			5.2(D.)
14	**Net Regional Debt Funded From Rates**	**$#,###**			
15	- Local (Collection) Debt (P+I)	$#,###			
16	Less: Local SDCs (Local Portion of SDCs)	(#,###)			
17	**Net Local (Collection) Debt Funded From Rates**	**$#,###**			
	+ **Capital Improvements Funded From Rates**			P. 52 - 74	1.2(A.) 4; 5.0(B.)
	- Regional Capital Improv. Funded From Rates			P.54	1.2(A.) 4
18	Existing Regional Assets	$#,###	≥ Annual Deprec. Exp.	P.59	1.2(A.) 5
19	New Expansion Projects	#,###	Gradual Annual Deprec. Exp.	P.59	1.2(A.) 5
20	- Local (Collection) Cap. Improv. Funded From Rates	#,###			1.2(A.) 5
21	**Total Capital Improvement Funded From Rates**	**$#,###**	Considers: R&R, Growth, Mandated		1.2(A.) 6; 5.2
22	+ **Change In Working Capital**	**$#,###**		P. 83	1.3(A.)
23	+ **Other Expenses**	#,###		P. 83	
24	= **Total Wastewater System Revenue Requirement**	**$#,###**			
25	– Less: Miscellaneous Revenues	$#,###		P. 81	
26	= **Net Revenue Requirement**	**$#,###**		P. 81	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: WEF MOP No. 27, Financing and Charges for Wastewater Systems, 2005.

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 wastewater 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 (O&M) 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 wastewater 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 wastewater system may be modified over time to better functionally track the costs associated with both the regional and the local collection 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.[11] 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) due to the regional facilities.

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. One potential non-rate funding source for regional debt service would be regional system development charges (SDCs). The financial policies limit the amount of anticipated SDCs[12] 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. The difference between the gross regional debt service payment and these funding sources produces the net regional debt service payment from rates.

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, such as local (collection system) SDCs.

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 capital improvement projects and their funding may be divided between existing assets (renewal and replacement) and expansion projects. In the case of new large assets that may be added to the system, depreciation expense for that asset may be gradually implemented into the rates.

[11] The chart of accounts may be condensed for purposes of simplification of the development of the revenue requirements. Major accounts or accounts that relate to the regional system should not be consolidated.
[12] "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

Sioux Falls Regional Wastewater Rate Calculations

Step 1 *Determine the Total Revenue Requirements for City of Sioux Falls Wastewater System*

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

Concepts:
- Regional CIP is segregated and separately funded from "Local" CIP
- Regional CIP should be segregated 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 Policy
	Regional Capital Improvement Projects -							1.2(A.) 4; 5.0(B.)
	Regional Replacement and Legally Mandated Projects -							1.2(A.)6; 5.0(D.)
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)	$#,###	$#,###	$#,###	$#,###	$#,###	As needed	1.4, 1.5
6	Existing Regional Capital Reserves	#,###	#,###	#,###	#,###	#,###	As available	1.3.C.
7	Other Outside Funding Sources	#,###	#,###	#,###	#,###	#,###	As available	
8	Grants	#,###	#,###	#,###	#,###	#,###	As available	
9	Other Non-Rate Funding Sources	#,###	#,###	#,###	#,###	#,###	As available	
10	Total Outside Funding Sources	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum Lines 5 - 9	
11	Regional Replac./Mandated CIP Funded From Rates	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	L. 4- 10 (≥ Regional Annual Deprec. Exp.)	1.2(A.)5
	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)	$#,###	$#,###	$#,###	$#,###	$#,###	As needed	1.4, 1.5
17	Existing Regional Capital Reserves	#,###	#,###	#,###	#,###	#,###	As available	1.3.C.
18	Regional System Development Charges	#,###	#,###	#,###	#,###	#,###	As available	1.2 SDC A-E; D.; 5.2 C,D.
19	Grants	#,###	#,###	#,###	#,###	#,###	As available	
20	Other Non-Rate Funding Sources	#,###	#,###	#,###	#,###	#,###	As available	
21	Total Outside Funding Sources	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Sum Lines 16 - 20	
22	Regional Growth/Expansion CIP Funded From Rates	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	If possible, should be $0	
23	**Total Regional CIP Funded From Rates [1]**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Line 11 + Line 22	
	Local Capital Improvement Projects -							1.2 A; SDC A-E; D.; 5.2 C,D.
	Note: City may use a similar framework to determine their level of CIP funding from rates for local (collection-related) projects							
24	**Total Local CIP Funded From Rates [1]**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**		

[1] - Lines 23 and 24 are brought forward to Table 1 for Capital Improvements Funded from Rates.

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 rates, reserves, bonding, low-interest loans or other outside funding sources. 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 have minimal funding 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) outline these reserves. As shown in Table 4, 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 90 days of O&M expenses.
- ***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 System Development Charge (SDC) Reserve*** – The local system development charge 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 4 – Maintenance of Minimum Reserve Levels

Sioux Falls Regional Wastewater Rate Calculations

Step 1 Determine the Total Revenue Requirements for City of Sioux Falls Wastewater 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 Sioux Falls Wastewater System - Fund Balances

Line No.	Financial Reserves	Approved Budget 2011	Projections 2012	2013	2014	2015	Min. Bal. Notes	*References* WEF Manual MOP No.	Regional Financial Policies
	Operating Reserve Fund							*P. 35, 36*	*1.1, 1.3 (A)*
1	Beginning Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###			
2	+ Additions	#,###	#,###	#,###	#,###	#,###			
3	- Reductions	#,###	#,###	#,###	#,###	#,###			
4	Ending Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###	≥ 90 days O&M		
	Capital Improvement Reserve Fund							*P. 36*	*1.3 (C)*
5	Beginning Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###			
6	+ Additions	#,###	#,###	#,###	#,###	#,###			
7	- Reductions	#,###	#,###	#,###	#,###	#,###			
8	Ending Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###	≅ 1 yr. R&R proj.		
	Regional SDC Reserve Fund[1]							*P. 37*	*1.3 (D)*
9	Beginning Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###			
10	+ Additions	#,###	#,###	#,###	#,###	#,###			
11	- Reductions	#,###	#,###	#,###	#,###	#,###			
12	Ending Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###	No. Min. Bal.		
	Local System Development Charge (SDC) Reserve Fund[2][3]							*P. 37*	*1.3 (D)*
13	Beginning Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###			
14	+ Additions	#,###	#,###	#,###	#,###	#,###			
15	- Reductions	#,###	#,###	#,###	#,###	#,###			
16	Ending Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###	No. Min. Bal.		
	Bond Reserve Fund[4]							*P. 36, 37*	*1.3 (E),1.4 (D)*
17	Beginning Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###			
18	+ Additions	#,###	#,###	#,###	#,###	#,###			
19	- Reductions	#,###	#,###	#,###	#,###	#,###			
20	Ending Fund Balance	$#,###	$#,###	$#,###	$#,###	$#,###	As Legally Required		

[1] - Regional SDCs are collected and applied only against regional growth/expansion related projects or debt. The regional SDC is designed to reflect costs associated with the regional system of treatment, regional interceptors and other, as identified.

[2] - Local capacity facility charge is a form of a system development charge. Used only for local growth/expansion projects or debt.

[3] - The total SDC paid by a new customer may have two components; the regional SDC component and a local component. The local componenet is for local (collection) infrastructure. For example, when a new customer connects to the City's system and pays an SDC, a portion of the total SDC will be placed in the "Regional SDC" fund and the balance in the "Local SDC" fund. The establishment and charging of SDCs are a decision of the local utility, but if a regional SDC is in place, it must be paid to the "Regional SDC Fund" regardless of the local decision to charge or not charge SDCs at the local level (i.e. the cost of regional SDCs could be embedded in the local rates).

[4] - As legally required by the bond covenants; May be further segregated by specific bond issue

Policy Reference: 1.4. D-E – Debt Service Coverage Ratios. When a wastewater 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.

Table 5 – Debt Service Coverage Ratio Test

Sioux Falls Regional Wastewater Rate Calculations

Step 1 Determine the Total Revenue Requirements for City of Sioux Falls Wastewater 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 covenant 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 Sioux Falls Wastewater System**

Debt Service Coverage Ratios	Approved Budget 2011	Projections 2012	2013	2014	2015	*References* WEF Manual MOP No.	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. 69*	
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 sometimes do not include system development charges; covenants specify if they are excluded. It does most often include other miscellaneous (non-growth dependent) funding sources.

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.

Adequate Funding of CIP From Rates Equal to Depreciation – Prudent financial planning dictates that a utility should fund a certain portion of capital improvement projects from rates on an on-going basis. The general financial guideline used is that at a minimum, a utility should fund an amount equal to or greater than annual depreciation expense. However, there are three reasons for increasing the level of capital funding through rates. The first is that funding levels over and above depreciation expense better reflect actual replacement cost. Second, increasing the level of capital funding from rates will help provide cash flow to fund the capital plan in future years, and minimize any long-term borrowing needs. Finally, an increased level of capital funding will have the added benefit of strengthening the utility's debt service coverage ratio.

Table 6 – Adequate Funding of CIP from Rates Equal to Depreciation

Sioux Falls Regional Wastewater Rate Calculations

Step 1 Determine the Total Revenue Requirements for City of Sioux Falls Wastewater System

Step 1d - Meeting Financial Planning Criteria - Adequate Funding of CIP from Rates Equal to Depreciation

Concepts: • Regional and local system need to adequately fund CIP from rates equal to depreciation
• Choose from replacement cost analysis, depreciation analysis, or 2% of original cost method

Step 1 **(Cont.) Determine Revenue Requirements for City of Sioux Falls Wastewater System**

Funding of CIP from Rates	Approved Budget 2011	Projections 2012	2013	2014	2015	*References* *WEF Manual MOP No. 27*	*Regional Financial Policies*
Replacement Cost Analysis - Replacement Costs to 20XX$ dollars with ENR)	$XXX,XXX,XXX						
Average years of Useful Life (replacement cycle)	60	60	60	60	60		
Annual Replacement Cost plus annual inflation	$X,XXX,XXX	$X,XXX,XXX	$X,XXX,XXX	$X,XXX,XXX	$X,XXX,XXX		
Plus Annual CIP Project Costs for Total Replacement Costs Annually	**$X,XXX,XXX**	**$X,XXX,XXX**	**$X,XXX,XXX**	**$X,XXX,XXX**	**$X,XXX,XXX**		
Depreciation Analysis							
Total Improvement Project	$X,XXX,XXX	$X,XXX,XXX	$X,XXX,XXX	$X,XXX,XXX	$X,XXX,XXX		
Average years of Depreciation	50	50	50	50	50		
Annual Increase in Depreciation	$XX,XXX	$XX,XXX	$XX,XXX	$XX,XXX	$XX,XXX		
Cumulative Increase in Depreciation	$XX,XXX	$XX,XXX	$XX,XXX	$XX,XXX	$XX,XXX		
Projected Depreciation	**$X,XXX,XXX**	**$X,XXX,XXX**	**$X,XXX,XXX**	**$X,XXX,XXX**	**$X,XXX,XXX**		
Plant Replacement Costs (Plant Original Cost x2%)	$XX,XXX,XXX						
2% of Original Cost	$X,XXX,XXX						
2% of Original Cost Method	**$X,XXX,XXX**	**$X,XXX,XXX**	**$X,XXX,XXX**	**$X,XXX,XXX**	**$X,XXX,XXX**		

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 and City Retail (Local Collection 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 and City retail (local costs)
Step 2a	Develop allocation methods that may be used to allocate costs between regional and local
Step 2b	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 (collection) 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.[13] 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 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 "5" 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.

[13] Regional connections are defined as the master meter for the regional customer.

Table 7 – Development of Allocation Methods

Sioux Falls Regional Wastewater 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 - Volume/Capacity (1,000 gal)

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

Method D - Diameter/Interceptors/Collectors

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

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

	Metered Connections		Weighting Factor[2]	Weighted Connections	
Regional	xxx	xx.x%	5.0	xxx	xx.x%
Local [1]	xxx	xx.x%	1.0	xxx	xx.x%
Total	xxx	100.00%		xxx	100.00%
		Method E			**Method F**

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%

[1] - Number of local metered connections (e.g. residential and non-residential)

[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

Sioux Falls Regional Wastewater 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]**							
1		480.11.01 Regular Employee Wages	$#,###	A	xx.x%	xx.x%	$#,###	$#,###	
2		480.11.02 Regular Employee Overtime	#,###	A	xx.x%	xx.x%	#,###	#,###	
3		480.13.01-10 (include all O&M account detail)	#,###	B	xx.x%	xx.x%	#,###	#,###	
4		480.22.01-11 Professional Services	#,###	F	xx.x%	xx.x%	#,###	#,###	
5		480.28.01-11 Utilities	#,###	C	xx.x%	xx.x%	#,###	#,###	
6		Incremental or Increased Service Level O&M	#,###	A	xx.x%	xx.x%	#,###	#,###	
7		***Total Operation and Maintenance Expenses***	**$#,###**				**$#,###**	**$#,###**	
	+	**Taxes and/or Transfer Payments**							
8		- Tax A - As applicable	$#,###	G	xx.x%	xx.x%	$#,###	$#,###	
9		- Tax B - As applicable	#,###	J	0.0%	100.0%	0	#,###	
10		- Transfer Payment 1 - As applicable	#,###	G	xx.x%	xx.x%	#,###	#,###	
11		**Total Taxes and Transfer Payments**	**$#,###**				**$#,###**	**$#,###**	
	+	**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%	$#,###	$0	
20		New Expansion Projects	#,###	I	100.0%	0.0%	(#,###)	0	
21		- Local (Distribution) Cap. Improv. Funded From Rates	#,###	J	0.0%	100.0%	0	(#,###)	
22		**Total Capital Improvement Funded From Rates**	**$#,###**				**$#,###**	**$#,###**	
23	+	**Change In Working Capital**	**$#,###**	G	xx.x%	xx.x%	$#,###	$#,###	
24	+	**Other Expenses**	**#,###**	B	xx.x%	xx.x%	#,###	#,###	
25	=	**Total Wastewater System Revenue Requirement**	**$#,###**				**$#,###**	**$#,###**	
26	–	Less: Miscellaneous Revenues	$#,###	G	xx.x%	xx.x%	#,###	#,###	
27	=	**Net Revenue Requirement**	**$#,###**				**$#,###**	**$#,###**	[2]
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] - Final allocation to City local system is irrelevant for purposes of establishing regional rates. Local rates are established by each local City, and each City may adjust their final local revenue requirement and rates to reflect their City Council's objectives and policy decisions.

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 flow 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 wastewater (rate) for the regional system, it does not consider the various regional customers and potential variations in levels of service (strength) 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 or any of the regional customers may establish local rates to reflect their local policy decisions.

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 on the Regional system. There are six sub-steps associated with the process. Shown below are the various detailed steps.

Step 3	**Allocate the Regional revenue requirement between the Regional customers**
Step 3a	Identify the various customers and their level of service. Determine whether costs will be allocated to each customer, or adjustments made to an allocated rate (e.g. an "adder" for high strength).
Step 3b	Develop allocation factors for the various regional customers for volume, strength, customer, revenue related and direct assignment classifications.
Step 3c	Functionalize and classify plant in service (rate base) and the revenue requirements between regional and local.
Step 3d	Allocate plant in service (rate base) to each regional customer class.
Step 3e	Using the utility basis approach, allocate the classified regional revenue requirements to the various cost components of the system and summarize the results.
Step 3f	Allocate the various system cost component totals to the various regional customers and summarize the results.

As noted above, this step involves taking the Regional revenue requirement and allocating it to the various regional customers of the Regional system. Given that, the first step (3a) involves defining the classes of service. At this time, it is anticipated that all regional customers will be

created and charged similarly. That is, they would be charged the same rate per thousand gallons of treated wastewater. However, with the initial study, each regional customer will be identified individually to determine what cost differences may exist, if any.

Additionally, it is important to note that some regional customers who provide pre-treatment to their flow may receive a reduced allocation of costs or a credit on strength charges. For illustrative purposes in the following tables, regional customers are identified as regional customers A through D. This is for illustrative purposes only, and the actual number of customers identified on the system will determined at a later date.

As needed, the regional system may define other customer classes of service. The intent of identifying regional customer classes individually 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:

- **Volume Costs**: Volume costs vary with the total quantity of wastewater consumed by a customer, such as chemicals or electricity used in the treatment of wastewater. Volume costs are typically those incurred under average load conditions and generally specified to a period of time such as a month or year.
- **Strength Costs**: Strength related costs are those costs associated with the additional handling and treatment of high "strength" wastewater. Strength of wastewater is typically measured in biochemical oxygen demand (BOD) and total suspended solids (SS). However, strength-related costs may also include loadings related to nitrogen (TKN). The BOD, SS, and TKN costs are based upon average loading characteristics. Increased loading levels generally equate to increased treatment costs. The increased loading levels beyond the average are allocated based on capacity costs. Pre-treatment is generally required if the discharge is known to regularly exceed the typical waste strength.
- **Capacity Costs**: Capacity costs are associated with costs that exceed the average loading characteristics. Capacity cost is a measure of peak day strength cost loadings. When loadings are significantly higher than average may cause operational (loading) issues from time to time. This approach follows basic cost of service principles in that the cost-causer should be the cost-payer.
- **Customer Related Costs**: Customer costs vary with the number of customers on the wastewater system rather than system output or flow or strength 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 wastewater 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 wastewater used or strength. These costs are often related to the level of revenue received, such as taxes or transfers based upon level of revenue generated by the system.
- **Direct Assignments**: Certain costs associated with operating the system may be directly traced to a specific customer or group of customers and, therefore, are directly assigned to that specific customer of customer group.

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. volume, capacity, strength, etc.) needs an allocation factor to equitably allocate the classified cost to the regional customers. Table 9 provides an overview of the volume and strength allocation factors.

Table 9: Development of the Volume Commodity and Capacity Allocation Factor

1. Volume Allocation Factor -

Class	Customer Description	Annual Sales (1,000 gal.)	Regional I/I (%) [1]	Total Requirements (1,000 gal.)	% of Total
A	Regional Customer A	x,xxx,xxx	x.xx%	x,xxx,xxx	**xx.x%**
B	Regional Customer B	xxx,xxx	x.xx%	xxx,xxx	**xx.x%**
C	Regional Customer C	xxx,xxx	x.xx%	xxx,xxx	**xx.x%**
D	Regional Customer D	xxx,xxx	x.xx%	xxx,xxx	**xx.x%**
E	Other	xxx,xxx	x.xx%	xxx,xxx	**xx.x%**
	Total	x,xxx,xxx		x,xxx,xxx	**100.0%**
	Allocation Factor				**(VOL)**

[1] - Regional I&I needs to be determined; I&I should likely be equal % across all customers unless special circumstances.

2. Strength Allocation Factor

Class	Customer Class	BOD (mg/l) [1]	BOD Cal. Lbs. [2]	% of Total	SS (mg/l)	SS Cal. Lbs.	% of Total	TKN (mg/l)	TKN Cal. Lbs.	% of Total
A	Regional Customer A	xxx	xxx	**xx.x%**	xxx	xxx	**xx.x%**	xxx	xxx	**xx.x%**
B	Regional Customer B	xxx	xxx	**xx.x%**	xxx	xxx	**xx.x%**	xxx	xxx	**xx.x%**
C	Regional Customer C	xxx	xxx	**xx.x%**	xxx	xxx	**xx.x%**	xxx	xxx	**xx.x%**
D	Regional Customer D	xxx	xxx	**xx.x%**	xxx	xxx	**xx.x%**	xxx	xxx	**xx.x%**
E	Other	xxx	xxx	**xx.x%**	xxx	xxx	**xx.x%**	xxx	xxx	**xx.x%**
	Total	xxx	xxx	**100.0%**	xxx	xxx	**100.0%**	xxx	xxx	**100.0%**
	Allocation Factor			**(BOD)**			**(SS)**			**(TKN)**

[1] - Strength testing of each regional customer's flow may be necessary to determine if in average range of milligrams per liter. Surcharges may apply when exceed established levels. Credits may apply

[2] - Can be calculated based on flow and strength.

Table 10 provides an overview of the capacity allocation factors.

Table 10: Development of the Capacity Allocation Factor

3. Capacity Allocation Factor

Class	Customer Class	Avg Day BOD Cal. Lbs. [1]	Peak Day Cal. Lbs. [2]	Excess Over Cal. Lbs.	% of Total
A	Regional Customer A	xxx	xxx	xxx	**xx.x%**
B	Regional Customer B	xxx	xxx	xxx	**xx.x%**
C	Regional Customer C	xxx	xxx	xxx	**xx.x%**
D	Regional Customer D	xxx	xxx	xxx	**xx.x%**
E	Other	xxx	xxx	xxx	**xx.x%**
	Total	xxx	xxx	xxx	**100.0%**
	Allocation Factor				**(CAP)**

[1] The average BOD provided by specific plant information.

[2] The peak day BOD are based on actual sewer flows not billed flow.

As can be seen, the allocation factors in Table 9 and 10 attempts to allocate the specific cost in a manner that equitably allocates the cost. Therefore, volume or flow-related costs are allocated on the basis of the total annual flow requirements of each customer class of service. For the strength allocation factor, measured or average BOD, SS and TKN contributions are utilized. The capacity allocation factor is based on BOD loadings in excess of the average BOD.

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

4. Customer Allocation Factor

Class	Customer Class	Actual Customer [1] Number of Customers	Actual Customer [1] % of Total	Weighted Customers Weighting Factor [2]	Weighted Customers Weighted Customers	Weighted Customers % of Total
A	Regional Customer A	xxx	**xx.x%**	1.25	xxx	**xx.x%**
B	Regional Customer B	xx	**xx.x%**	1.25	xx	**xx.x%**
C	Regional Customer C	xx	**xx.x%**	1.25	xx	**xx.x%**
D	Regional Customer D	xx	**xx.x%**	1.25	xx	**xx.x%**
E	Other	x	**xx.x%**	1.25	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 disproportion into account. Weighting factors used in this example are for illustrative purposes only. Number of actual customers multiplied by the weighting factor = weighted customers.

5. Revenue-Related Allocation Factor

Class	Customer Class	Total Rate Revenue [1]	% of Total
A	Regional Customer A	$xxx,xxx	**xx.x%**
B	Regional Customer B	xxx,xxx	**xx.x%**
C	Regional Customer C	xx,xxx	**xx.x%**
D	Regional Customer D	xx,xxx	**xx.x%**
E	Other	x,xxx	**xx.x%**
	Total		**100.0%**
	Allocation Factor		**(REV)**

[1] - Regional revenue only

The customer allocation factor is based upon the number of regional customers, not on the number of customers 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 sludge treatment, tertiary, biosolids and portions of the interceptors, collectors, lift stations and pumping facilities. Table 12 provides the analytical framework for this analysis.

Table 12: Classification of Plant in Service

Sioux Falls Regional Wastewater 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	Volume	SS	BOD	TKN	Capacity	Actual Customer	Weighted Customer	Revenue Related	Direct Assign.[4]	Basis of Classification
	+ **Various**														
1	Shelving, benches, warehouse (shop), etc.	$###,###	B	xx.x%	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	As All Other Plant
2	**Total Intangible Plant**	$###,###			**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	+ **Collection**														
3	Lateral lines	$ ##,###,###	D	0.0%	$#,###	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	To Local system
4	Trunk Sewer Lines	##,###,###	Dir. Assign.	xx.x%	#,###	#,###	0	0	0	0	0	0	0	0	% as determined regional
5	Collection/Pumping: Land	###,###	Dir. Assign.	xx.x%	#,###	#,###	0	0	0	0	0	0	0	0	To Local system, as approp.
6	Lift Stations [2]	#,###,###	Dir. Assign.	xx.x%	#,###	#,###	0	0	0	0	0	0	0	0	% as determined regional
7	Force Mains [2]	#,###,###	Dir. Assign.	xx.x%	#,###	#,###	0	0	0	0	0	0	0	0	% as determined regional
8	**Total Collection Plant**	$###,###,###			**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	
	+ **Pumping Plant**														
9	Regional Pumping Facilities	$#,###,###	I	100.0%	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	Sized for peak flow
10	Local Pumping Facilities	#,###,###	J	0.0%	0	0	0	0	0	0	0	0	0	0	Sized for peak flow
11	Other Misc. Pumping Plant [2]	###,###	As Other Pumps	xx.x%	#,###	#,###	0	0	0	0	0	0	0	0	
12	**Total Pumping Plant**	**$#,###,###**			**$#,###**	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	
	+ **Treatment Plant (Sludge, Laboratory)**														
13	Sludge Treatment Land	$###,###	I	100.0%	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	x.x% BOD;SS; TKN; CAP
14	Sludge Treatment Building	##,###,###	I	100.0%	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	x.x% BOD;SS; TKN; CAP
15	Other Treatment Related Facilities	#,###,###	I	100.0%	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	x.x% BOD;SS; TKN; CAP
16	**Total Treatment Plant**	$##,###,###			**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	+ **Tertiary Plant**														
17	Tertiary Land	$###,###	I	100.0%	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	x.x% BOD;SS; TKN; CAP
18	Tertiary Building	#,###,###	I	100.0%	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	x.x% BOD;SS; TKN; CAP
19	Tertiary Structure and Other (Lab.)	#,###,###	I	100.0%	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	x.x% BOD;SS; TKN; CAP
20	**Total Transmission Plant**	$ #,###,###			**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	+ **Biosolids Plant**														
21	Biosolids Land	$###,###	I	100.0%	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	x.x% BOD;SS; TKN; CAP
22	Biosolids Building	#,###,###	I	100.0%	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	x.x% BOD;SS; TKN; CAP
23	Biosolids Other Structures	#,###,###	I	100.0%	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	x.x% BOD;SS; TKN; CAP
24	Equipment	###,###	I	100.0%	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	x.x% BOD;SS; TKN; CAP
25	**Total Distribution Plant**	$ #,###,###			**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	$ 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%	xx.x%	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 (3)**														
	Various Plant	($ ##,###)	As Various Plant	xx.x%	($#,###)	($#,###)	($#,###)	($#,###)	($#,###)	($#,###)	$ 0	$ 0	$ 0	$ 0	As Various Plant
	Collection	(#,###,###)	As Collection	xx.x%	(#,###)	(#,###)	0	0	0	0	0	0	0	0	As Collection
	Pumping Plant	(###,###)	As Pumping Plant	xx.x%	(#,###)	(#,###)	0	0	0	0	0	0	0	0	As Pumping Plant
	Treatment Plant	(#,###,###)	As Treatment Plant	xx.x%	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	0	0	0	0	As Treatment Plant
	Tertiary Plant	(###,###)	As Tertiary Plant	xx.x%	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	0	0	0	0	As Tertiary Plant
	Biosolids Plant	(###,###)	As Biosolids Plant	xx.x%	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	0	0	0	0	As Biosolids Plant
	General Plant	(##,###)	As General Plant	xx.x%	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	(#,###)	0	0	0	0	As General Plant
	Total Accumulated Depreciation	**(#,###,###)**			**($#,###)**	**($#,###)**	**($#,###)**	**($#,###)**	**($#,###)**	**($#,###)**	$ 0	$ 0	$ 0	$ 0	
	+ **Plus: Other Rate Base Items**														
	Working Capital (1/8 of O&M Expense)	$###,###	As Plant Fact. 1	xx.x%	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	As Plant Factor 1
	Materials and Supplies (Ave. Balance)	#,###,###	As Plant Fact. 1	xx.x%	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	As Plant Factor 1
		$ #,###,###			**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	$ 0	$ 0	$ 0	$ 0	
	- **Less: Contributed Capital [5]**	($###,###)	As Plant	xx.x%	**($#,###)**	**($#,###)**	**($#,###)**	**($#,###)**	**($#,###)**	**($#,###)**	$ 0	$ 0	$ 0	$ 0	As known for major assets
	= **Total RATE BASE**	**$##,###,###**			**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	$ 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] - Local and regional portions of plant in service is being determined. Some regional customers may benefit from these some lift stations and force mains.
[3] - Accumulated depreciation is generally classified in the same manner as the corresponding original plant in service.
[4] - There may be certain facilities that may be "directly assigned." That is, the facilities can be identified to a specific customer or group of customers.
[5] - Contributions in aid of construction and working capital are included since using a "utility basis" approach for cost of service, which considers these components for a return on investment methodology.

In assigning the costs between regional and local, all sludge, treatment and biosolids facilities are 100% regional. Within Table 12, it is presumed that local collection costs are "local." However, a certain portion of "conveyance" interceptors may serve potential Regional customers.

The classification of plant in service is based upon the WEF cost of service principles. The classifications shown in Table 12 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 volume and strength-related costs (e.g. treatment plant) are based upon the Regional system's total flow and inflow and infiltration. For example, total treatment costs may be allocated 50% to flow and 20% to BOD and SS, and 5% TKN depending upon the operating characteristics of the plant. This approach is more of an "operational" perspective and will be modified and adjusted to reflect actual operational characteristics.

Once plant in service has been functionalized and classified to the various cost components, those cost components are allocated to the regional customers to determine each customer's share of the total rate base. This is step 3d of the cost of service methodology, and is shown below in Table 13.

Table 13: Allocated of Plant in Service (Rate Base) to Customer Classes

Sioux Falls Regional Wastewater Rate Calculations

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

Step 3d - Allocation of Rate Base to Customer Classes

Line No.	Classification Component	Total Plant	Regional - A	Regional - B	Regional - C	Regional - D	Local	Allocations
	Volume Related							
	VOL - Regional	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	VOL
	VOL - Local	#,###	0	0	0	0	#,###	VOL, DA
1	**Total Volume**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	
	Strength Related							
	SS	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	SS
	BOD	#,###	#,###	#,###	#,###	#,###	0	BOD
	TKN	#,###	#,###	#,###	#,###	#,###	0	TKN
2	**Total Strength Related**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	$ 0	
3	**Capacity Related**	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	CAP
	Customer Related							
	Actual Customer	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	AC
	Weighted Customer	0	0	0	0	0	0	WC
4	**Total Customer Related**	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	
5	**Revenue Related**	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	RR
6	**Direct Assignment**	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	DA
7	**Total Rate Base**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	

Once the plant in service has been allocated to the customer classes to determine the total rate base, the next Step (3e) 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 14. It is important to note that at this point in the analysis the methodology shifts from the cash-basis to the utility basis approach. The utility basis approach allows the utility to receive a fair return on the investment the City has made in the regional wastewater facilities. Therefore, the depreciation expense on

facilities and the return on investment components replace the capital from rates and the debt payments on capital (principal and interest) that were included in the revenue requirements developed in Step 2.

Table 14: Classification of the Regional Revenue Requirements

Sioux Falls Regional Wastewater Rate Calculations

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

Step 3e - Classification of the Regional Expenses (Regional Revenue Requirement)using the Utility Basis

Concepts: • Regional share of costs are classified to cost components
• Split between volume and strength is based upon system data from the treatment plant and similar plant experience
• Classifications are for example only, final classifications will depend upon the chart of accounts and level of detail
• Include plant depreciation in place of debt service and rate funded capital to allow for return on investment

Line No.	Description	Regional Share	Volume	SS	BOD	TKN	Capacity	Actual Customer	Weighted Customer	Revenue Related	Direct Assign.	Basis of Classification
	+ Operation and Maintenance Expenses											
1	480.11.01 Regular Employee Wages	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	As Plant Factor 2
2	480.11.02 Regular Employee Overtime	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	As Plant Factor 2
3	480.13.01-10 (include all O&M account detail)	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	0	As Plant Factor 2
4	480.22.01-11 Professional Services	#,###	#,###	0	0	0	0	0	0	0	0	100% VOL
		#,###	0	0	0	0	0	0	#,###	0	0	100% WC
5	480.28.01-11 Utilities	#,###	#,###	0	0	0	0	0	0	0	0	100% VOL
		#,###	#,###	0	0	0	0	0	0	0	0	As Collection Plant
6	Incremental or Increased Service Level O&M	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	#,###	As Plant Factor 2
7	***Total Operation and Maintenance Expenses***	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$#,###**	**$ 0**	**$ 0**	
	+ Taxes and/or Transfer Payments											
8	- Tax A - As applicable	$#,###	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$#,###	$ 0	Any specific taxes will
9	- Tax B - As applicable	#,###	0	0	0	0	0	0	0	#,###	0	need to be analyzed
10	- Transfer Payment 1 - As applicable	#,###	0	0	0	0	0	0	0	#,###	0	As Revenue Related (RR)
11	**Total Taxes and Transfer Payments**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$ 0**	**$#,###**	**$ 0**	
	+ Depreciation Expense											
12	- Collection System Depreciation	$#,###	$#,###	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$ 0	$#,###	As Collection Plant
13	- Treatment Plant Depreciation	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	#,###	As Treatment Plant
14	- General Plant Depreciation	#,###	#,###	#,###	#,###	#,###	#,###	0	0	0	#,###	As Plant Factor 2
15	**Net Regional Debt Funded From Rates**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$ 0**	**$ 0**	**$#,###**	
16	– Less: Miscellaneous Revenues	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	$ 0	$#,###	$#,###	$#,###	As Tot. Rev. Requir.
17	**= Net Revenue Requirement**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$ 0**	**$#,###**	**$#,###**	$#,###	
18	**Total Regional Flow (1,000 gallons)**	###,###,###										
19	**Average Cost - Regional Wastewater Rate ($/1,000 gallons)**	**=$/1,000 gal.**										

Note: WEF, MOP No. 27, Financing and Charges for Wastewater Systems, 2005.

The classifications shown in Table 14 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 volume-related need, strength-related, capacity-related need, etc.). The classifications should be routinely reviewed and modified to create equitable allocations.

The bottom line (Line 17) is the net 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 15 provides the framework for the allocation of the Regional revenue requirements to the various Regional customer classes of service.

Table 15: Allocation of the Regional Revenue Requirements

Sioux Falls Regional Wastewater Rate Calculations

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

Step 3f - 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]	Regional Customer - A	Regional Customer - B	Regional Customer - C	Regional Customer - D	Other (As Needed)	Allocation Factor
1	Volume Related	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	VOL
	Strength Related							
	Suspended Solids (SS)	#,###	#,###	#,###	#,###	#,###	#,###	SS
	BOD	#,###	#,###	#,###	#,###	#,###	#,###	BOD
	TKN	#,###	#,###	#,###	#,###	#,###	#,###	TKN
2	Total Strength Related	#,###	#,###	#,###	#,###	#,###	#,###	
3	Capacity Related	#,###	#,###	#,###	#,###	#,###	#,###	CAP
4	Actual Customer Related	#,###	#,###	#,###	#,###	#,###	#,###	AC
5	Weighted Customer Related	#,###	#,###	#,###	#,###	#,###	#,###	WC
6	Revenue Related	#,###	#,###	#,###	#,###	#,###	#,###	REV
7	Direct Assignment	#,###	#,###	#,###	#,###	#,###	#,###	Direct [2]
8	**Total Net Regional Revenue Requir.**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	

[1] - Column carried forward from bottom line of Table 14, Step 3e (Line 17); classification of the regional expenses.
[2] - Costs that are directly assigned are not allocated, but assigned directly to a particular customer class of service.

Because this is a utility basis approach, and the return on investment needs to be taken into account, there is one additional process within Step 3f, and that is allocating the rate base and the return on investment to determine the total summary of the cost of service.

Table 16: Allocation of Rate Base and Return on Investment to Summarize Total Cost of Service

Summary of the Regional Cost of Service Analysis -

Lower Line No.	Description	Total	Regional Customer - A	Regional Customer - B	Regional Customer - C	Regional Customer - D	Other (As Needed)	
1	Total Rate Revenue at Existing Regional Rates	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	
2	Less: Allocated Net Regional Revenue Requir.	#,###	#,###	#,###	#,###	#,###	#,###	L. 8 of allocation above
3	Balance or (Deficiency) of Funds	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	L. 1 - L. 2
4	Rate Base	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	From Step 3d
5	Present Return on Rate Base	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
6	Proposed Return Component	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	TBD
7	Proposed Rate of Return	x.x%	x.x%	x.x%	x.x%	x.x%	x.x%	L. 6 / L. 1
8	Proposed Rate Revenue	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	L. 6 + L. 2
9	Required $ Change in Rates	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	L. 8 - L. 1
10	Percent Change in Rates, as a % of Rate Revenue	x.x%	x.x%	x.x%	x.x%	x.x%	x.x%	L. 9 / L. 1

The summary table provides a comparison between the existing rate levels and the allocated cost of service. In addition, the rate base and return components are allocated to each

customer class for the final total revenue needed from each regional customer to cover the cost to provide service to them. The cost of service provides an understanding of the cost associated with serving the various regional customers.

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 17 provides an overview of the format and approach for the development of average unit costs.

Table 17: Development of the Regional Average Unit Costs

Sioux Falls Regional Wastewater 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 3f) 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	Regional Customer - A	Regional Customer - B	Regional Customer - C	Regional Customer - D	Other (As Needed)	Reference
1	Volume Related	$#,###	$#,###	$#,###	$#,###	$#,###	$#,###	Step 3f, L. 1
2	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 1 / L. 22
3	Strength Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L. 2
4	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 3 / L. 22
5	Capacity Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L. 3
6	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 5/ L. 22
7	Revenue Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L. 6
8	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 7 / L. 22
9	Direct Assignment	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L. 7
10	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 9/ L. 22
11	Return	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, lower L. 6
12	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 11/ L. 22
13	Total $/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L.2 +L.4 +L.6 +L.8 +L10 +L12
14	Actual Customer Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L.4
15	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 14 / L. 22
16	$/Customer/Month	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 14 / L. 23 / 12
17	Weighted Customer Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 3f, L.5
18	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 17 / L. 22
19	$/Customer/Month	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 17 / L. 23/ 12
20	**Total Net Regional Revenue Requir.**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	**$#,###**	Step 3f, lower L. 8
21	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	L. 20 / L. 22
	Basic Data							
22	Volumetric Flow - 1,000 gallons	#,###,###	#,###,###	#,###,###	#,###,###	#,###,###	--	Treated Flow
23	**# of 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, Step 4, uses this information to design final proposed rate designs.

Step 4 – Development of the Final Proposed Rate Designs

The step takes the analyses previously developed and establishes final proposed rate designs for the various regional customer groups.

Step 4 Develop unit costs/rate designs for the various Regional customers	
Step 4a	For each regional customer, divide the classified regional revenue requirements by the billing units (e.g. volume, revenue, number of customers, etc.) to determine the average unit cost for that particular customer.

While the cost of service has developed a simplified rate design within the average unit cost analysis, this 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.).

Step 5 – Determine Surcharges for Exceeding Average Strength Loadings

The final step takes the analyses previously developed and establishes surcharges for any excess strength loadings. Shown below is an overview of the final step.

Step 5 Determine surcharges for exceeding average strength loadings

Step 4 designed final rate designs based on the average unit cost analysis. Step 5 designs any applicable surcharges based on exceeding the average strength loadings.

Sioux Falls Regional Wastewater Rate Calculations

Step 5 Determine Surcharges

Concepts: • Utilize the average units costs from step 4 to determine surcharges

Line No.	Cost Components	Total Net Regional Expenses	Regional Customer - A	Regional Customer - B	Regional Customer - C	Regional Customer - D	Other	Reference
1	Capacity Related	#,###	#,###	#,###	#,###	#,###	#,###	Step 4a, L. 5
2	$/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	Step 4a, L. 6
3	Average Daily BOD	#,###	#,###	#,###	#,###	#,###	#,###	From Allocation 3
4	Peak BOD	#,###	#,###	#,###	#,###	#,###	#,###	From Allocation 3
5	Excess BOD (Peak - Average)	#,###	#,###	#,###	#,###	#,###	#,###	
6	Rate per $/1,000 gallons	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	$x.xx	Line 2
7	**Surcharge**	**$x.xx**	**$x.xx**	**$x.xx**	**$x.xx**	**$x.xx**	**$x.xx**	**Line 5 X Line 6**

Summary

The over-arching intent in establishing this methodology for the Regional Wastewater System is to establish fair and cost-based rates at the Regional level. This conceptual methodology can be applied and refined when the actual regional rate analysis is developed for the first time.

Appendix C – Wastewater System
Comprehensive Regional Rate Analysis

City of Sioux Falls Regional Wastewater System
Exhibit 1
Summary of the Sewer Revenue Requirement

	Budget	Projected			
	2011	**2012**	**2013**	**2014**	**2015**
REVENUE					
Calculated Rate Revenues	$18,365,436	$18,549,090	$18,734,581	$19,015,600	$19,300,834
Miscellaneous Revenues	368,529	318,225	350,978	381,644	377,256
TOTAL REVENUE	**$18,733,965**	**$18,867,315**	**$19,085,559**	**$19,397,244**	**$19,678,090**
USE OF FUNDS					
Operations and Maintenance	$8,432,590	$8,670,954	$8,916,323	$9,168,905	$9,428,915
Net Debt Service Payments	5,981,245	9,023,498	9,364,740	9,396,585	10,304,221
Total Capital Improvement Projects Funded From Rates	4,320,130	4,550,000	4,825,000	5,100,000	5,375,000
Total Application of Funds	$18,733,965	$22,244,452	$23,106,063	$23,665,490	$25,108,136
Total Change in Working Capital	$0	$0	$0	$0	$0
Total Revenue Requirement	**$18,733,965**	**$22,244,452**	**$23,106,063**	**$23,665,490**	**$25,108,136**
Balance/(Deficiency) of Funds Before Rate Adjustment	**($0)**	**($3,377,137)**	**($4,020,504)**	**($4,268,246)**	**($5,430,046)**
Balance as a % of Rate Adjustment Required	**0.0%**	**18.2%**	**21.5%**	**22.4%**	**28.1%**
Proposed Rate Adjustment	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Additional Revenue with Proposed Rate Adjustment	**$0**	**$0**	**$0**	**$0**	**$0**
Balance/Deficiency of Funds After Proposed Rate Adjustment	**($0)**	**($3,377,137)**	**($4,020,504)**	**($4,268,246)**	**($5,430,046)**
Additional Rate Adjustment Required	**0.0%**	**18.2%**	**21.5%**	**22.4%**	**28.1%**
Ending Fund Balance	$8,563,011	$8,103,436	$7,929,148	$7,916,941	$7,687,929
Target for Minimum Reserves	$3,154,000	$3,353,000	$3,414,000	$3,586,000	$3,650,000
Balance/(Deficiency) from Target	$5,409,011	$4,750,436	$4,515,148	$4,330,941	$4,037,929

City of Sioux Falls Regional Wastewater System
Step 1 - Exhibit 2
Escalation Factors

	Budget	Projected			
	2011	**2012**	**2013**	**2014**	**2015**
Revenues					
Rate Revenues Growth	Budget	1.00%	1.50%	1.50%	1.50%
Other Revenues	Budget	1.00%	1.00%	1.00%	1.00%
Interest Earnings	0.50%	1.00%	1.50%	2.00%	2.00%
Expenses					
Labor	Budget	3.00%	3.00%	3.00%	3.00%
Health Benefits	Budget	3.00%	3.00%	3.00%	3.00%
Other Benefits	Budget	3.00%	3.00%	3.00%	3.00%
Materials & Supplies	Budget	3.00%	3.00%	3.00%	3.00%
Equipment	Budget	3.00%	3.00%	3.00%	3.00%
Insurance	Budget	3.00%	3.00%	3.00%	3.00%
Miscellaneous	Budget	1.00%	1.00%	1.00%	1.00%
Electricity	Budget	3.00%	3.00%	3.00%	3.00%
Utilities	Budget	3.00%	3.00%	3.00%	3.00%
Natural Gas	Budget	3.00%	3.00%	3.00%	3.00%
Debt Service (If necessary)					
Revenue Bonds					
Term in Years	20	20	20	20	20
Rate	6.00%	6.00%	6.00%	6.00%	6.00%
Low-Interest Loans					
Term in Years	10	10	10	10	10
Rate	1.25%	1.25%	1.25%	1.25%	1.25%

City of Sioux Falls Regional Wastewater System
Step 1 - Exhibit 3
Total Regional Wastewater System - Revenue Requirement - Projected 2010 - 2015

	Budget	Projected					
	2011	**2012**	**2013**	**2014**	**2015**	*Notes:*	Line
REVENUE							
Calculated Rate Revenues							
City of Sioux Falls	$17,491,494	$17,666,409	$17,843,073	$18,110,720	$18,382,380	As Rate Revenues Growth	RR 1
Existing Wholesale Customers							RR 2
Brandon	$153,072	$154,603	$156,149	$158,491	$160,869	As Rate Revenues Growth	RR 3
Harrisburg	472,590	477,316	482,089	489,320	496,660	As Rate Revenues Growth	RR 4
Prairie Meadows	126,588	127,854	129,132	131,069	133,035	As Rate Revenues Growth	RR 5
Renner	121,691	122,908	124,137	125,999	127,889	As Rate Revenues Growth	RR 6
Potential New Wholesale Customers							RR 7
Baltic	$0	$0	$0	$0	$0	As Rate Revenues Growth	RR 8
Canton	0	0	0	0	0	As Rate Revenues Growth	RR 9
Corson	0	0	0	0	0	As Rate Revenues Growth	RR 10
Crooks	0	0	0	0	0	As Rate Revenues Growth	RR 11
Garretson	0	0	0	0	0	As Rate Revenues Growth	RR 12
Hartford	0	0	0	0	0	As Rate Revenues Growth	RR 13
Lennox	0	0	0	0	0	As Rate Revenues Growth	RR 14
Tea	0	0	0	0	0	As Rate Revenues Growth	RR 15
Valley Springs	0	0	0	0	0	As Rate Revenues Growth	RR 16
Worthing	0	0	0	0	0	As Rate Revenues Growth	RR 17
Total Rate Revenues	$18,365,436	$18,549,090	$18,734,581	$19,015,600	$19,300,834		RR 18
Miscellaneous Revenues							
Miscellaneous	$1,075	$1,086	$1,097	$1,108	$1,119	As Other Revenues	MR 1
Late Charges	41,000	41,410	41,824	42,242	42,665	As Other Revenues	MR 2
Rental Income	3,000	3,030	3,060	3,091	3,122	As Other Revenues	MR 3
Special Assessments	34,695	35,042	35,392	35,746	36,104	As Other Revenues	MR 4
Ground Water Recovery	963	973	982	992	1,002	As Other Revenues	MR 5
Contractual Sales	3,000	3,030	3,060	3,091	3,122	As Other Revenues	MR 6
Other Sewer Charges/Maintanence	7,450	7,525	7,600	7,676	7,752	As Other Revenues	MR 7
Sale of Scrap	124	125	126	128	129	As Other Revenues	MR 8
Liquid Waste	118,150	119,332	120,525	121,730	122,947	As Other Revenues	MR 9
Pretreatment Fees	22,741	22,968	23,198	23,430	23,664	As Other Revenues	MR 10
Interest Income	136,331	83,705	114,113	142,410	135,630	As Interest Earnings	MR 11
Total Miscellaneous Revenues	$368,529	$318,225	$350,978	$381,644	$377,256		MR 12
TOTAL REVENUE	**$18,733,965**	**$18,867,315**	**$19,085,559**	**$19,397,244**	**$19,678,090**		TR 1

	Budget	Projected					
	2011	2012	2013	2014	2015	*Notes:*	Line
EXPENSES							
Collection System							
Full Time	$1,003,642	$1,033,751	$1,064,764	$1,096,707	$1,129,608	As Labor	CE 1
Overtime	30,060	30,962	31,891	32,847	33,833	As Labor	CE 2
Standby	13,300	13,699	14,110	14,533	14,969	As Labor	CE 3
Part-Time	19,200	19,776	20,369	20,980	21,610	As Labor	CE 4
Sick Leave & Benefits	9,881	10,177	10,483	10,797	11,121	As Health Benefits	CE 5
Deferred Compensation	11,276	11,614	11,963	12,322	12,691	As Other Benefits	CE 6
Social Security & Medicare	77,233	79,550	81,936	84,395	86,926	As Other Benefits	CE 7
Retirement Compensation	139,249	143,426	147,729	152,161	156,726	As Other Benefits	CE 8
Other Post Employment Benefits	51,702	53,253	54,851	56,496	58,191	As Other Benefits	CE 9
Worker's Compensation	7,100	7,313	7,532	7,758	7,991	As Other Benefits	CE 10
Group Insurance	164,075	168,997	174,067	179,289	184,668	As Other Benefits	CE 11
Life Insurance	3,295	3,394	3,496	3,601	3,709	As Insurance	CE 12
Property, Liability, etc.	24,509	24,754	25,002	25,252	25,504	As Miscellaneous	CE 13
Legal	7,500	7,725	7,957	8,195	8,441	As Labor	CE 14
Consultants	50,000	51,500	53,045	54,636	56,275	As Labor	CE 15
Independent Contractor	25,346	26,106	26,890	27,696	28,527	As Labor	CE 16
From Other Departments	42,015	42,435	42,860	43,288	43,721	As Miscellaneous	CE 17
Other	375	379	383	386	390	As Miscellaneous	CE 18
Property	650	657	663	670	676	As Miscellaneous	CE 19
Fleet Equipment	154,750	159,393	164,174	169,100	174,172	As Equipment	CE 20
Licensed Vehicles	10,000	10,300	10,609	10,927	11,255	As Equipment	CE 21
Unlicensed Vehicles	3,000	3,090	3,183	3,278	3,377	As Equipment	CE 22
Other Equipment	46,715	48,116	49,560	51,047	52,578	As Equipment	CE 23
Buildings and Structures	13,140	13,271	13,404	13,538	13,674	As Miscellaneous	CE 24
Repairs & Maintanence/Utilities	33,770	34,783	35,827	36,901	38,008	As Utilities	CE 25
Grounds	230	232	235	237	239	As Miscellaneous	CE 26
Garage Parts LIC Vehicle	49,900	51,397	52,939	54,527	56,163	As Materials & Supplies	CE 27
Office	10,910	11,237	11,574	11,922	12,279	As Materials & Supplies	CE 28
Fuel	46,529	47,925	49,363	50,843	52,369	As Materials & Supplies	CE 29
Clothing & Protective Equipment	10,006	10,306	10,615	10,934	11,262	As Materials & Supplies	CE 30
Small Tools & Minor Equipment	4,517	4,653	4,792	4,936	5,084	As Materials & Supplies	CE 31
Chemical/Lab	78,254	80,602	83,020	85,510	88,076	As Materials & Supplies	CE 32
Janitorial/Shop	410	422	435	448	461	As Materials & Supplies	CE 33
Non Capital Inventory	10,400	10,712	11,033	11,364	11,705	As Materials & Supplies	CE 34
Computer Software & Maintenance	46,944	47,413	47,888	48,366	48,850	As Miscellaneous	CE 35
Computer Hardware	13,800	13,938	14,077	14,218	14,360	As Miscellaneous	CE 36
Memberships & Dues	54	55	55	56	56	As Miscellaneous	CE 37
Mileage/Motor Pool	95	96	97	98	99	As Miscellaneous	CE 38
Training, Travel in-state	3,536	3,571	3,607	3,643	3,680	As Miscellaneous	CE 39
Training, Travel out-state	7,850	7,929	8,008	8,088	8,169	As Miscellaneous	CE 40
Telephone	1,661	1,678	1,694	1,711	1,728	As Miscellaneous	CE 41
Natural Gas	29,584	30,472	31,386	32,327	33,297	As Natural Gas	CE 42
Electricity	297,145	306,059	315,241	324,698	334,439	As Electricity	CE 43
Water	26,583	27,380	28,202	29,048	29,919	As Utilities	CE 44
Wireless Service	2,352	2,376	2,399	2,423	2,448	As Miscellaneous	CE 45
Mobile Phone Service	4,537	4,582	4,628	4,674	4,721	As Miscellaneous	CE 46
Right-Of-Way	50,000	50,500	51,005	51,515	52,030	As Miscellaneous	CE 47
Total Collection System	$2,637,080	$2,711,957	$2,789,039	$2,868,390	$2,950,078		CE 48

	Budget	Projected					
	2011	2012	2013	2014	2015	*Notes:*	Line
Engineering							
Full Time	$217,624	$224,153	$230,877	$237,804	$244,938	As Labor	EE 1
Overtime	975	1,004	1,034	1,065	1,097	As Labor	EE 2
Standby	0	0	0	0	0	As Labor	EE 3
Part-Time	0	0	0	0	0	As Labor	EE 4
Sick Leave & Benefits	3,941	4,059	4,181	4,306	4,436	As Health Benefits	EE 5
Deferred Compensation	4,419	4,552	4,688	4,829	4,974	As Other Benefits	EE 6
Social Security & Medicare	16,502	16,997	17,507	18,032	18,573	As Other Benefits	EE 7
Retirement Compensation	29,308	30,187	31,093	32,026	32,986	As Other Benefits	EE 8
Other Post Employment Benefits	10,882	11,208	11,545	11,891	12,248	As Other Benefits	EE 9
Group Insurance	30,650	31,570	32,517	33,492	34,497	As Other Benefits	EE 10
Life Insurance	575	592	610	628	647	As Insurance	EE 11
Consultants	115,000	118,450	122,004	125,664	129,434	As Labor	EE 12
Independent Contractor	5,145	5,299	5,458	5,622	5,791	As Labor	EE 13
Utilities	25,000	25,750	26,523	27,318	28,138	As Utilities	EE 14
Office	1,000	1,030	1,061	1,093	1,126	As Materials & Supplies	EE 15
Computer Software & Maintenance	7,094	7,165	7,237	7,309	7,382	As Miscellaneous	EE 16
Memberships & Dues	462	467	471	476	481	As Miscellaneous	EE 17
Subscriptions & Publication	500	505	510	515	520	As Miscellaneous	EE 18
Mileage/Motor Pool	125	126	128	129	130	As Miscellaneous	EE 19
Training, Travel in-state	450	455	459	464	468	As Miscellaneous	EE 20
Training, Travel out-state	2,800	2,828	2,856	2,885	2,914	As Miscellaneous	EE 21
Total Engineering	$472,452	$486,397	$500,758	$515,547	$530,778		EE 22
Environment							
Full Time	$89,142	$91,816	$94,571	$97,408	$100,330	As Labor	EVE 1
Part-Time	24,480	25,214	25,971	26,750	27,552	As Labor	EVE 2
Sick Leave & Benefits	551	568	585	602	620	As Health Benefits	EVE 3
Deferred Compensation	3,566	3,673	3,783	3,897	4,014	As Other Benefits	EVE 4
Social Security & Medicare	8,783	9,046	9,318	9,597	9,885	As Other Benefits	EVE 5
Retirement Compensation	11,813	12,167	12,532	12,908	13,296	As Other Benefits	EVE 6
Other Post Employment Benefits	4,386	4,518	4,653	4,793	4,936	As Other Benefits	EVE 7
Group Insurance	9,083	9,355	9,636	9,925	10,223	As Other Benefits	EVE 8
Life Insurance	228	235	242	249	257	As Insurance	EVE 9
Independent Contractor	100	103	106	109	113	As Labor	EVE 10
From Other Departments	2,000	2,020	2,040	2,061	2,081	As Miscellaneous	EVE 11
Other	1,000	1,010	1,020	1,030	1,041	As Miscellaneous	EVE 12
Hazardous Waste	2,000	2,060	2,122	2,185	2,251	As Materials & Supplies	EVE 13
Engineering & Testing	5,000	5,150	5,305	5,464	5,628	As Materials & Supplies	EVE 14
Publishing & Advertising	2,900	2,929	2,958	2,988	3,018	As Miscellaneous	EVE 15
Property	1,500	1,515	1,530	1,545	1,561	As Miscellaneous	EVE 16
Technology Equipment	2,398	2,470	2,544	2,620	2,699	As Equipment	EVE 17
Other Equipment	750	773	796	820	844	As Equipment	EVE 18
Office	6,270	6,458	6,652	6,851	7,057	As Materials & Supplies	EVE 19
Clothing & Protective Equipment	883	909	937	965	994	As Materials & Supplies	EVE 20
Small Tools & Minor Equipment	330	340	350	361	371	As Materials & Supplies	EVE 21
Chemical/Lab	850	876	902	929	957	As Materials & Supplies	EVE 22
Other (Supplies & Materials)	11,000	11,330	11,670	12,020	12,381	As Materials & Supplies	EVE 23
Computer Software & Maintenance	1,750	1,768	1,785	1,803	1,821	As Miscellaneous	EVE 24
Memberships & Dues	610	616	622	628	635	As Miscellaneous	EVE 25
Subscription & Publications	290	293	296	299	302	As Miscellaneous	EVE 26
Mileage/Motor Pool	350	354	357	361	364	As Miscellaneous	EVE 27
Training, Travel in-state	1,400	1,414	1,428	1,442	1,457	As Miscellaneous	EVE 28
Training, Travel out-state	6,800	6,868	6,937	7,006	7,076	As Miscellaneous	EVE 29
Mobile Phone Service	905	914	923	932	942	As Miscellaneous	EVE 30
Total Environmental	$201,118	$206,761	$212,570	$218,549	$224,704		EVE 31

	Budget	Projected					
	2011	2012	2013	2014	2015	*Notes:*	Line
Treatment							
Full Time	$1,486,220	$1,530,807	$1,576,731	$1,624,033	$1,672,754	As Labor	TE 1
Overtime	52,712	54,293	55,922	57,600	59,328	As Labor	TE 2
Standby	4,940	5,088	5,241	5,398	5,560	As Labor	TE 3
Part-Time	9,450	9,734	10,026	10,326	10,636	As Labor	TE 4
Sick Leave & Benefits	60,864	62,690	64,571	66,508	68,503	As Health Benefits	TE 5
Deferred Compensation	10,414	10,726	11,048	11,380	11,721	As Other Benefits	TE 6
Social Security & Medicare	117,509	121,034	124,665	128,405	132,257	As Other Benefits	TE 7
Retirement Compensation	211,505	217,850	224,386	231,117	238,051	As Other Benefits	TE 8
Other Post Employment Benefits	78,531	80,887	83,314	85,813	88,387	As Other Benefits	TE 9
Worker's Compensation	5,809	5,983	6,163	6,348	6,538	As Other Benefits	TE 10
Group Insurance	229,851	236,747	243,849	251,164	258,699	As Other Benefits	TE 11
Life Insurance	5,298	5,457	5,621	5,789	5,963	As Insurance	TE 12
Property, Liability, etc.	73,527	74,262	75,005	75,755	76,512	As Miscellaneous	TE 13
Consultants	25,000	25,750	26,523	27,318	28,138	As Labor	TE 14
Independent Contractor	215,971	222,450	229,124	235,997	243,077	As Labor	TE 15
From Other Departments - Utility Billing	165,774	167,432	169,106	170,797	172,505	As Miscellaneous	TE 16
Other	410	414	418	422	427	As Miscellaneous	TE 17
Property	6,975	7,045	7,115	7,186	7,258	As Miscellaneous	TE 18
Technology Equipment	29,198	30,074	30,976	31,905	32,863	As Equipment	TE 19
Fleet Equipment	199,250	205,228	211,384	217,726	224,258	As Equipment	TE 20
Licensed Vehicles	3,000	3,090	3,183	3,278	3,377	As Equipment	TE 21
Unlicensed Vehicles	10,800	11,124	11,458	11,801	12,155	As Equipment	TE 22
Other Equipment	26,005	26,785	27,589	28,416	29,269	As Equipment	TE 23
Buildings and Structures	38,000	38,380	38,764	39,151	39,543	As Miscellaneous	TE 24
Street, Curb, & Sidewalk	3,500	3,535	3,570	3,606	3,642	As Miscellaneous	TE 25
Repairs & Maintanence/Utilities	344,520	354,856	365,501	376,466	387,760	As Utilities	TE 26
Grounds	8,550	8,636	8,722	8,809	8,897	As Miscellaneous	TE 27
Garage Parts LIC Vehicle	85,000	87,550	90,177	92,882	95,668	As Materials & Supplies	TE 28
Office	18,925	19,493	20,078	20,680	21,300	As Materials & Supplies	TE 29
Fuel	123,449	127,152	130,967	134,896	138,943	As Materials & Supplies	TE 30
Clothing & Protective Equipment	18,200	18,746	19,308	19,888	20,484	As Materials & Supplies	TE 31
Small Tools & Minor Equipment	7,200	7,416	7,638	7,868	8,104	As Materials & Supplies	TE 32
Chemical/Lab	268,367	276,418	284,711	293,252	302,049	As Materials & Supplies	TE 33
Janitorial/Shop	49,260	50,738	52,260	53,828	55,443	As Materials & Supplies	TE 34
Other (Supplies & Materials)	900	927	955	983	1,013	As Materials & Supplies	TE 35
Non Capital Inventory	21,685	22,336	23,006	23,696	24,407	As Materials & Supplies	TE 36
Computer Software & Maintenance	40,295	40,698	41,105	41,516	41,931	As Miscellaneous	TE 37
Computer Hardware	16,900	17,069	17,240	17,412	17,586	As Miscellaneous	TE 38
Memberships & Dues	987	997	1,007	1,017	1,027	As Miscellaneous	TE 39
Subscriptions & Publications	3,540	3,575	3,611	3,647	3,684	As Miscellaneous	TE 40
Mileage/Motor Pool	290	293	296	299	302	As Miscellaneous	TE 41
Training, Travel in-state	2,822	2,850	2,879	2,908	2,937	As Miscellaneous	TE 42
Training, Travel out-state	2,564	2,590	2,616	2,642	2,668	As Miscellaneous	TE 43
Training In-house	4,170	4,212	4,254	4,296	4,339	As Miscellaneous	TE 44
Telephone	9,070	9,161	9,252	9,345	9,438	As Miscellaneous	TE 45
Natural Gas	76,472	78,766	81,129	83,563	86,070	As Natural Gas	TE 46
Electricity	587,166	604,781	622,924	641,612	660,861	As Electricity	TE 47
Water	23,304	24,003	24,723	25,465	26,229	As Utilities	TE 48
Storm Sewer	30,977	31,906	32,863	33,849	34,865	As Utilities	TE 49
Sanitation	71,046	73,177	75,373	77,634	79,963	As Utilities	TE 50
Wireless Service	0	0	0	0	0	As Miscellaneous	TE 51
Mobile Phone Service	7,730	7,807	7,885	7,964	8,044	As Miscellaneous	TE 52
Miscellaneous	750	758	765	773	780	As Miscellaneous	TE 53
State Fees	102,150	103,172	104,203	105,245	106,298	As Miscellaneous	TE 54
Total Treatment	$4,996,802	$5,136,946	$5,281,197	$5,429,676	$5,582,511		TE 55

	Budget	Projected					
	2011	**2012**	**2013**	**2014**	**2015**	*Notes:*	Line
Wastewater/Street							
Full Time	$18,849	$19,414	$19,997	$20,597	$21,215	As Labor	WSE 1
Part-Time	23,760	24,473	25,207	25,963	26,742	As Labor	WSE 2
Sick Leave & Benefits	533	549	565	582	600	As Health Benefits	WSE 3
Social Security & Medicare	3,300	3,399	3,501	3,606	3,714	As Other Benefits	WSE 4
Retirement Compensation	2,552	2,629	2,707	2,789	2,872	As Other Benefits	WSE 5
Other Post Employment Benefits	948	976	1,006	1,036	1,067	As Other Benefits	WSE 6
Group Insurance	3,737	3,849	3,965	4,084	4,206	As Other Benefits	WSE 7
Life Insurance	90	93	95	98	101	As Insurance	WSE 8
Fleet Equipment	1,003	1,033	1,064	1,096	1,129	As Equipment	WSE 9
Utilities	66,790	68,794	70,858	72,983	75,173	As Utilities	WSE 10
Garage Parts LIC Vehicle	834	859	885	911	939	As Materials & Supplies	WSE 11
Fuel	442	455	469	483	497	As Materials & Supplies	WSE 12
Non Capital Inventory	2,300	2,369	2,440	2,513	2,589	As Materials & Supplies	WSE 13
Total Wastewater/Street	$125,138	$128,892	$132,759	$136,742	$140,844		WSE 14
TOTAL WASTEWATER O&M EXPENSES	**$8,432,590**	**$8,670,954**	**$8,916,323**	**$9,168,905**	**$9,428,915**		TOM 1
Debt Service							
Regional Debt Payment							
SRF #16 - East Side Trunk Sewer & Lift Stations	$213,381	$213,381	$213,381	$213,381	$213,381	From Debt Schedule	RDS 1
SRF #18 - Wastewater Systems Improvement Projects	151,657	151,657	151,657	151,657	151,657	From Debt Schedule	RDS 2
SRF #21A - ESSS Phase 1 Project	777,863	777,863	777,863	777,863	777,863	5/09 Rate Study - ESS Phase 1	RDS 3
SRF #21B - ESSS Phase 1 Project	1,083,961	1,083,961	1,083,961	1,083,961	1,083,961	From Debt Schedule	RDS 4
SRF #23 - ESSS, Brandon Rd. Pumping, & Basin 13	911,797	911,797	911,797	911,797	911,797	From Debt Schedule	RDS 5
SRF #25 - Basin 13 Regional collection	197,025	197,025	197,025	197,025	197,025	From Debt Schedule	RDS 6
SRF #26 - Central Main	362,018	362,018	362,018	362,018	362,018	From Debt Schedule	RDS 7
SRF #28 - Water Reclamation Facility Energy Recovery	38,423	51,231	51,231	51,231	51,231	From Debt Schedule	RDS 8
SRF #29 - Basin 13 Trunk Sewer and Pipe Lining project	72,866	97,155	97,155	97,155	97,155	From Debt Schedule	RDS 9
SRF #30 - Central Main Interceptor - Phase 3, Segments 2, 3, &4	470,797	470,797	470,797	470,797	470,797	Calculated using total loan amount	RDS 10
SRF #32 - Central Main Interceptor - Phase 3, Segments 5 & 6	0	1,384,128	1,384,128	1,384,128	1,384,128	Calculated using total loan amount	RDS 11
New Revenue Bonds	0	0	0	0	0	As 6.0%, 20 years	RDS 12
New Low Interest Loans	0	1,178,631	1,937,128	2,002,545	3,059,930	As 2.25%, 10 years	RDS 13
Total Regional Debt Service	$4,279,788	$6,879,643	$7,638,141	$7,703,557	$8,760,942		RDS 14
Less: Regional SDCs							
≤ 50% of Reg. SDCs Received	$0	$300,000	$303,000	$307,545	$312,158	50% Reg. SDCs	RDS 15
Net Regional Debt Service Payment	$4,279,788	$6,579,643	$7,335,141	$7,396,012	$8,448,784		RDS 16
Local Debt Payment							
SRF #1	$188,802	$110,135	$0	$0	$0	5/09 Rate Study	LDS 1
SRF #14	608,240	304,120	0	0	0	5/09 Rate Study	LDS 2
SRF #15 - Elimination of Lift Station	174,162	174,162	174,162	145,135	0	From Debt Schedule	LDS 3
SRF #16 - Westward Ho Trunk Line & Sanitary Sewer Pipe Lining	86,311	86,311	86,311	86,311	86,311	From Debt Schedule	LDS 4
SRF #18 - Wastewater Systems Improvement Projects	284,390	284,390	284,390	284,390	284,390	From Debt Schedule	LDS 5
SRF #23 - Basin 16	257,174	257,174	257,174	257,174	257,174	From Debt Schedule	LDS 6
SRF #25 - Basin 13, Odor Control System	86,057	86,057	86,057	86,057	86,057	From Debt Schedule	LDS 7
SRF #29 - Basin 13 Trunk Sewer and Pipe Lining project	16,321	21,762	21,762	21,762	21,762	From Debt Schedule	LDS 8
SRF #32 - Dakota Ave. - Russell to 3rd St & Pipe Lining Project	0	1,119,744	1,119,744	1,119,744	1,119,744	Calculated using total loan amount	LDS 9
New Revenue Bonds	0	0	0	0	0	As 6.0%, 20 years	LDS 10
New Low Interest Loans	0	0	0	0	0	As 2.25%, 10 years	LDS 11
Total Local Debt Service	$1,701,457	$2,443,855	$2,029,600	$2,000,573	$1,855,437		LDS 12
Less: Local SDCs							
≤ 50% of Local SDCs Received	$0	$0	$0	$0	$0	50% Reg. SDCs	LDS 13
Net Local Debt Service Payment	$1,701,457	$2,443,855	$2,029,600	$2,000,573	$1,855,437		LDS 14
Net Debt Service Payments	**$5,981,245**	**$9,023,498**	**$9,364,740**	**$9,396,585**	**$10,304,221**		NDS 1

	Budget	Projected					
	2011	**2012**	**2013**	**2014**	**2015**	*Notes:*	Line
Capital Improvements Funded From Rates							
Regional Capital Improv. Funded From Rates							
Existing Regional Assets	$3,554,665	$3,550,000	$3,575,000	$3,600,000	$3,625,000		RCIP 1
New Expansion Projects	0	0	0	0	0		RCIP 2
Total Regional Capital Improv. Funded From Rates	$3,554,665	$3,550,000	$3,575,000	$3,600,000	$3,625,000	'10 Deprec. Approx. $3.55 M	RCIP 3
Local (Collection) Capital Improv. Funded From Rates							
Existing Regional Assets	$765,465	$1,000,000	$1,250,000	$1,500,000	$1,750,000		LCIP 1
New Expansion Projects	0	0	0	0	0		LCIP 2
Total Local Capital Improv. Funded From Rates	$765,465	$1,000,000	$1,250,000	$1,500,000	$1,750,000	'10 Deprec. Approx. $3.85 M	LCIP 3
Total Capital Improvement Projects Funded From Rates	**$4,320,130**	**$4,550,000**	**$4,825,000**	**$5,100,000**	**$5,375,000**		TCIP 1
Change in Working Capital +/-							
Operating Reserve	$0	$0	$0	$0	$0		CWC 1
Repair & Replacement Reserve	0	0	0	0	0		CWC 2
Bond Reserve	0	0	0	0	0		CWC 3
Total Change in Working Capital	$0	$0	$0	$0	$0		CWC 4
TOTAL REVENUE REQUIREMENT	**$18,733,965**	**$22,244,452**	**$23,106,063**	**$23,665,490**	**$25,108,136**		TRR 1
Balance/(Deficiency) of Funds Before Rate Adjustment	**($0)**	**($3,377,137)**	**($4,020,504)**	**($4,268,246)**	**($5,430,046)**		
Balance as a % of Rate Adjustment Required	**0.0%**	**18.2%**	**21.5%**	**22.4%**	**28.1%**		
Proposed Rate Adjustment	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**		
Additional Revenue with Proposed Rate Adjustment	**$0**	**$0**	**$0**	**$0**	**$0**		
Balance/Deficiency of Funds After Proposed Rate Adjustment	**($0)**	**($3,377,137)**	**($4,020,504)**	**($4,268,246)**	**($5,430,046)**		
Additional Rate Adjustment Required	**0.0%**	**18.2%**	**21.5%**	**22.4%**	**28.1%**		
Regional Revenue Bond Debt Service Coverage Ratio							
Before Rate Adjustment	0.00	0.00	0.00	0.00	0.00	Minimum 1.50	
After Needed Rate Adjustment	0.00	0.00	0.00	0.00	0.00	Minimum 1.50	
After Proposed Rate Adjustment	0.00	0.00	0.00	0.00	0.00	Minimum 1.50	
Total Regional Debt Service Coverage Ratio							
Before Rate Adjustment	2.41	1.48	1.33	1.33	1.17	Minimum 1.30	
After Needed Rate Adjustment	2.41	1.48	1.33	1.33	1.17	Minimum 1.30	
After Proposed Rate Adjustment	2.41	1.48	1.33	1.33	1.17	Minimum 1.30	
All Revenue Bond Debt Service Total Coverage Ratio							
Before Rate Adjustment	0.00	0.00	0.00	0.00	0.00	Minimum 1.50	
After Needed Rate Adjustment	0.00	0.00	0.00	0.00	0.00	Minimum 1.50	
After Proposed Rate Adjustment	0.00	0.00	0.00	0.00	0.00	Minimum 1.50	
All Outstanding Debt Service Coverage Ratio							
Before Rate Adjustment	1.72	1.09	1.05	1.05	0.97	Minimum 1.30	
After Needed Rate Adjustment	1.72	1.09	1.05	1.05	0.97	Minimum 1.30	
After Proposed Rate Adjustment	1.72	1.09	1.05	1.05	0.97	Minimum 1.30	

	Budget	Projected					
	2011	**2012**	**2013**	**2014**	**2015**	*Notes:*	Line
FUND BALANCES (As of December 2010)							
Operating Reserve							
Beginning Balance	$4,754,598	$4,754,598	$4,754,598	$4,754,598	$4,754,598		
Plus: From Working Capital	0	0	0	0	0		
Less: Uses of Funds	0	0	0	0	0		
Ending Balance	$4,754,598	$4,754,598	$4,754,598	$4,754,598	$4,754,598		
Target = 90 Days O&M (Policy minimum balance)	$2,079,000	$2,138,000	$2,199,000	$2,261,000	$2,325,000		
Repair & Replacement Reserve							
Beginning Balance	$4,425,448	$3,615,913	$2,852,913	$2,365,913	$2,026,913		
Plus: From CIP	0	0	0	0	0		
Change in Working Capital	0	0	0	0	0		
Less: Uses of Funds - CIP	809,535	763,000	487,000	339,000	567,000		
Ending Balance	$3,615,913	$2,852,913	$2,365,913	$2,026,913	$1,459,913		
1-year Renewal & Replacement Projects (Policy minumum balance)	$1,075,000	$1,215,000	$1,215,000	$1,325,000	$1,325,000		
Regional System Development Charge (SDC) Reserve							
Beginning Balance	$0	$192,500	$495,925	$808,636	$1,135,430		
Plus: Regional SDCs	0	600,000	606,000	615,090	624,316	As Rate Revenues Growth	
Regional Cost Recovery Payments	192,500	0	0	0	0	As Rate Revenues Growth	
Interest Earnings	0	3,425	9,711	19,248	25,830		
Less: Uses of Funds - CIP	0	0	0	0	0		
Uses of Funds - Debt Service	0	300,000	303,000	307,545	312,158		
Ending Balance	$192,500	$495,925	$808,636	$1,135,430	$1,473,418		
Local System Development Charge (SDC) Reserve							
Beginning Balance	$0	$0	$0	$0	$0		
Plus: Local SDCs	0	0	0	0	0		
Local Cost Recovery Payments	0	0	0	0	0	As Rate Revenues Growth	
Interest Earnings	0	0	0	0	0		
Less: Uses of Funds - CIP	0	0	0	0	0		
Uses of Funds - Debt Service	0	0	0	0	0		
Ending Balance	$0	$0	$0	$0	$0		
Ending Fund Balance	**$8,563,011**	**$8,103,436**	**$7,929,148**	**$7,916,941**	**$7,687,929**		
Target for Minimum Reserves	**3,154,000**	**3,353,000**	**3,414,000**	**3,586,000**	**3,650,000**		
Balance/(Deficiency) from Target	$5,409,011	$4,750,436	$4,515,148	$4,330,941	$4,037,929		

City of Sioux Falls Regional Wastewater System
Step 1 - Exhibit 4 (A)
Regional - Capital Improvement Plan

Tier		2011	2012	2013	2014	2015	Total	Funding Source
	Regional Capital Improvement Projects							
	Regional Replacement and Legally Mandated Projects -							
1	Central Main Interceptor Replacement - Seg. 5 & 6	$12,935,403	$0	$0	$0	$0	$12,935,403	SRF
1	WRF Effulent Filter Media and Equipment Replacement	3,240,000	0	0	0	0	3,240,000	SRF
2	Odor Control Program	0	0	0	580,000	0	580,000	
2	Trickling Filter Replacement	2,173,000	0	0	0	0	2,173,000	WW RES
2	Sioux River South Interceptor - Phase I	0	14,000,000	0	0	0	14,000,000	
2	Sioux River South Interceptor Replacement - Phase II	0	0	10,300,000	0	0	10,300,000	
2	Flow Equalization Basin Expansion and Improvements	0	0	0	0	13,000,000	13,000,000	
	Unidentified Capital Projects	0	0	0	3,600,000	0	3,600,000	
	Total Regional Replacement and Legally Mandated Projects -	**$18,348,403**	**$14,000,000**	**$10,300,000**	**$4,180,000**	**$13,000,000**	**$59,828,403**	
	Less: Outside Funding Sources							
	Operating Reserve	$0	$0	$0	$0	$0	$0	
	Capital Reserve	0	0	0	0	0	0	
	East Side Sanitary Project - New SRF	0	0	0	0	0	0	ESS
	Restricted WWTF Fund Reserves	2,173,000	0	0	0	0	2,173,000	WW RES
	SRF Loan	12,620,738	0	0	0	0	12,620,738	SRF
	Grants	0	0	0	0	0	0	
	System Development Charges	0	0	0	0	0	0	
	New Revenue Bond	0	0	0	0	0	0	
	New Low Interest Loan	0	10,450,000	6,725,000	580,000	9,375,000	27,130,000	
	Total Outside Funding Sources	$14,793,738	$10,450,000	$6,725,000	$580,000	$9,375,000	$41,923,738	
	Regional Replac./Mandated Projects Funded From Rates	**$3,554,665**	**$3,550,000**	**$3,575,000**	**$3,600,000**	**$3,625,000**	Target Rates:	'10 Deprec. Approx. $3.55 M

City of Sioux Falls Regional Wastewater System
Step 1 - Exhibit 4 (B)
Local - Capital Improvement Plan

Tier		2011	2012	2013	2014	2015	Total	Funding Source
	Local Capital Improvement Projects							
1	Tomar Heights Trunk Sewer and Drainage Way Improvements	$450,000	$0	$0	$0	$0	$450,000	
2	Roosevelt Channel Drainage Improvements	0	0	8,000	0	0	8,000	
2	Hayward Trunk Sewer CIP Liner	1,900,000	0	0	0	0	1,900,000	SRF
2	Western Interceptor Relief Sewer Improvements - Phase I	1,200,000	0	0	0	0	1,200,000	SRF
2	Western Interceptor Relief Sewer Improvements - Phase II	1,600,000	0	0	0	0	1,600,000	SRF
2	Sioux River So. Interceptor CIPP Lining - Phase III	1,700,000	0	0	0	0	1,700,000	SRF
2	Elimination of LS 208 (Rice & Kiwanis) - Phase II	0	0	0	0	453,000	453,000	
2	Otonka Channel Drainage Improvements	0	0	0	0	25,000	25,000	
2	Collection System Flow Metering Improvements	0	0	0	0	0	0	
2	Solberg Ave Drainage Improvements	0	34,000	0	0	0	34,000	
2	Facility Planning	50,000	50,000	50,000	50,000	50,000	250,000	
1	Pipe Lining Program	1,064,000	464,000	464,000	464,000	464,000	2,920,000	SRF - in 2011
2	Arterial Street Improvements (Previously Developed)	250,000	250,000	250,000	250,000	250,000	1,250,000	EA
2	Arterial Street Improvements (Previously Developed)	125,000	125,000	125,000	125,000	125,000	625,000	REV
1	Manhole Rehabilitation Project	300,000	100,000	100,000	100,000	100,000	700,000	REV
2	Neighborhood Restoration Projects	150,000	150,000	150,000	150,000	150,000	750,000	REV
2	East Side Future Interceptors	50,000	50,000	50,000	50,000	50,000	250,000	REV
2	Sanitary Sewers - Other Mains	300,000	640,000	640,000	750,000	750,000	3,080,000	REV
2	Right-Of-Way Acquisition for Public Works	50,000	50,000	50,000	50,000	50,000	250,000	REV
2	Concrete Pavement Restoration and Joint Replacement	50,000	50,000	50,000	50,000	50,000	250,000	REV
2	SDDOT Project Coordination	50,000	50,000	50,000	50,000	50,000	250,000	REV
	Total Local Capital Improvement Projects	$9,289,000	$2,013,000	$1,987,000	$2,089,000	$2,567,000	$17,945,000	
	Unidentified Capital Projects	$0	$0	$0	$0	$0	$0	
	Total Capital Projects	**$9,289,000**	**$2,013,000**	**$1,987,000**	**$2,089,000**	**$2,567,000**		

City of Sioux Falls Regional Wastewater System
Step 1 - Exhibit 4 (B)
Local - Capital Improvement Plan

Tier	2011	2012	2013	2014	2015	Total	Funding Source
Total Capital Projects	**$9,289,000**	**$2,013,000**	**$1,987,000**	**$2,089,000**	**$2,567,000**		
Less: Outside Funding Sources							
Operating Reserve	$0	$0	$0	$0	$0	$0	
Capital Reserve	809,535	763,000	487,000	339,000	567,000	2,965,535	
Proceeds From Existing SRF Loans	0	0	0	0	0	0	exSRF
Assessments - Funded w/ user fees 5-yr reimburse. schedule	250,000	250,000	250,000	250,000	250,000	1,250,000	EA
Restricted WWTF Fund Reserves	0	0	0	0	0	0	WW RES
SRF Loan	7,464,000	0	0	0	0	7,464,000	SRF
Cost Recovery Payments	0	0	0	0	0	0	
Grants	0	0	0	0	0	0	
System Development Charges	0	0	0	0	0	0	
New Revenue Bond	0	0	0	0	0	0	
New Low Interest Loan	0	0	0	0	0	0	
Total Outside Funding Sources	$8,523,535	$1,013,000	$737,000	$589,000	$817,000	$11,679,535	
Capital Funded Through Rates	**$765,465**	**$1,000,000**	**$1,250,000**	**$1,500,000**	**$1,750,000**	Target Rates:	'10 Deprec. Approx. $3.85 M

NOTES:
[1] "EA" is an abbriviation found in the 2009 Rate Study done for the City.

City of Sioux Falls Regional Wastewater System
Step 2 - Exhibit 5
Development of the Allocation Methods

Method		Allocation $ Regional	Allocation $ Local	Allocation $ Total	Allocation % Regional	Allocation % Local	*Notes:*
A	- Labor Hours/Wages of FTE's	N/A	N/A		0.0%	0.0%	
B	- Total Gross System Investment	$114,331,850	$115,022,598	$229,354,448	49.8%	50.2%	* Total gross system investment for both the Regional share and the Local share were determined by adding lines: C13, P4, TP12, T11, B5. Lines V1 and G1 were not included because they are allocated using Allocation Method "B".
C	- Collection & Pumping Plant Investment	$51,244,279	$114,015,176	$165,259,456	31.0%	69.0%	* Collection & pumping plant investment for both the Regional share and the Local share were determined by adding lines: C1 through C9 and P1 and P2. Lines C10 through C12 and P3 were not included because they are allocated using Allocation Method "C".
D	- Total Treatment vs. Collection Expenses	$4,996,802	$2,637,080	$7,633,882	65.5%	34.5%	* Ratio based on the 2011 O&M treatment and collection expenses to the total of these expenses.
E	- Volume Sales (1,000 gallons)	5,103,267	4,740,000	9,843,267	51.8%	48.2%	* "Local share" of the volume of sales is the City of Sioux Falls. * Regional share are all customers' volume of sales.
F	- Diameter/Length of Collection System	7,470,039	42,434,788	49,904,827	15.0%	85.0%	* Regional and Local share of pipe length and diameter provided by the City. * "Inch - Feet" calculation was used to idenitify the regional and local portions of the collection assets of the wastewater utility; including pipelines and force mains.
G	- Revenues (Regional Portion vs. Local Portion)	$13,468,565	$5,129,069	$18,597,634	72.4%	27.6%	* Rate revenues for the City of Sioux Falls were allocated to Regional and Local using the ratio of the total revenue requirements. * All wholesale customers are considered Regional revenue. * Miscellaeous revenues were allocated based on other allocation methods and included in either the Regional or Local revenues.
H	- Eastside Sewer Total Construction Cost	$13,340,000	10,960,000	$24,300,000	54.9%	45.1%	Total Eastside Regional Sewer construction cost (not including staff time, CM, etc.) and the portion specifically identified as regional, per HDR staff (TJ Yerdon)
I	- Direct - 100% Regional	1	0	1	100.0%	0.0%	* Total being allocated is completely allocated to Regional.
J	- Direct - 100% Local	0	1	1	0.0%	100.0%	* Total being allocated is completely allocated to Local.
K	- Bond Split (Regional Portion vs. Local Portion)	$3,914,750	$1,701,457	$5,616,207	69.7%	30.3%	* Ratio found by taking the regional (or local) bonds as a percentage of total bonds

Calculation of Allocation Methods

B * Step 3 - Exhibit 12. Total system investment was found by (= C13 + P4 + TP12 + T11 + B5).

C * Step 3 - Exhibit 12. The Regional share added lines in the regional column: C1 through C9 and P1 and P2. The Local share added lines in the local column: C1 through C9 and P1 and P2.

D * Step 1 - Exhibit 3. Regional share is line TE55 and Local share is, line CE48. Ratio for Regional = line TE55 / (line TE55 + line CE48). Ratio for Local = line CE48 / (line TE55 + line CE48).

E * Step 3 - Exhibit 7. Regional share is total billed flow. The Local share is strictly City of Sioux Falls' billed flow.

F * Total found by each diameter of pipe (inches) multiplied by the length of pipe (feet) for that particular diameter of pipe (i.e., inches times feet). Split out for Regional and Local.

G * Step 2 - Exhibit 5. Regional share has added lines R-RR18 + R-RM12 under the Regional column. Local share has added lines R-RR18 + R-RM12 under the Local column.

K * Step 1 - Exhibit 3. Regional share has added lines RDS1 through RDS12 together. Local bond share is found in Step 1 - Exhibit 3, by adding lines LDS1 through LDS10.

NOTES:

[B] As noted on asset listing as regional facilities by City staff, hand written notes; received 02/17/2011.
[C] Utility staff, indiciated that the Engineering Division most likely spent 25% of time on treatment, 75% on collection. This factor based on plant assets came as close as possible.
[D] Utility Operations Administrator, indicated this as an appropriate method to use to allocate expenses of Environment and Engineering divisions.

	2011	Allocation Method	Allocation % Regional	Allocation % Local	Allocation $ Regional	Allocation $ Local	Line
REVENUE							
Calculated Rate Revenues							
City of Sioux Falls	$17,491,494	As Expense Totals	71.2%	28.8%	$12,453,733	$5,037,762	R-RR 1
Existing Wholesale Customers							R-RR 2
Brandon	$153,072	I	100.0%	0.0%	$153,072	$0	R-RR 3
Harrisburg	472,590	I	100.0%	0.0%	472,590	0	R-RR 4
Prairie Meadows	126,588	I	100.0%	0.0%	126,588	0	R-RR 5
Renner	121,691	I	100.0%	0.0%	121,691	0	R-RR 6
Potential New Wholesale Customers							R-RR 7
Baltic	$0	I	100.0%	0.0%	$0	$0	R-RR 8
Canton	0	I	100.0%	0.0%	0	0	R-RR 9
Corson	0	I	100.0%	0.0%	0	0	R-RR 10
Crooks	0	I	100.0%	0.0%	0	0	R-RR 11
Garretson	0	I	100.0%	0.0%	0	0	R-RR 12
Hartford	0	I	100.0%	0.0%	0	0	R-RR 13
Lennox	0	I	100.0%	0.0%	0	0	R-RR 14
Tea	0	I	100.0%	0.0%	0	0	R-RR 15
Valley Springs	0	I	100.0%	0.0%	0	0	R-RR 16
Worthing	0	I	100.0%	0.0%	0	0	R-RR 17
Total Rate Revenues	$18,365,436				$13,327,674	$5,037,762	R-RR 18
Miscellaneous Revenues							
Miscellaneous	$1,075	J	0.0%	100.0%	$0	$1,075	R-MR 1
Late Charges	41,000	J	0.0%	100.0%	0	41,000	R-MR 2
Rental Income	3,000	J	0.0%	100.0%	0	3,000	R-MR 3
Special Assessments	34,695	J	0.0%	100.0%	0	34,695	R-MR 4
Ground Water Recovery	963	J	0.0%	100.0%	0	963	R-MR 5
Contractual Sales	3,000	J	0.0%	100.0%	0	3,000	R-MR 6
Other Sewer Charges/Maintanence	7,450	J	0.0%	100.0%	0	7,450	R-MR 7
Sale of Scrap	124	J	0.0%	100.0%	0	124	R-MR 8
Liquid Waste	118,150	I	100.0%	0.0%	118,150	0	R-MR 9
Pretreatment Fees	22,741	I	100.0%	0.0%	22,741	0	R-MR 10
Interest Income	136,331	G	72.4%	27.6%	98,732	37,599	R-MR 11
Total Miscellaneous Revenues	$368,529				$239,623	$128,906	R-MR 12
TOTAL REVENUE	**$18,733,965**				**$13,567,297**	**$5,166,668**	R-TR 1

	2011	Allocation Method	Allocation % Regional	Allocation % Local	Allocation $ Regional	Allocation $ Local	Line
EXPENSES							
Collection System							
Full Time	$1,003,642	F	15.0%	85.0%	$150,231	$853,411	R-CE 1
Overtime	30,060	F	15.0%	85.0%	4,500	25,560	R-CE 2
Standby	13,300	F	15.0%	85.0%	1,991	11,309	R-CE 3
Part-Time	19,200	F	15.0%	85.0%	2,874	16,326	R-CE 4
Sick Leave & Benefits	9,881	F	15.0%	85.0%	1,479	8,402	R-CE 5
Deferred Compensation	11,276	F	15.0%	85.0%	1,688	9,588	R-CE 6
Social Security & Medicare	77,233	F	15.0%	85.0%	11,561	65,672	R-CE 7
Retirement Compensation	139,249	F	15.0%	85.0%	20,844	118,405	R-CE 8
Other Post Employment Benefits	51,702	F	15.0%	85.0%	7,739	43,963	R-CE 9
Worker's Compensation	7,100	F	15.0%	85.0%	1,063	6,037	R-CE 10
Group Insurance	164,075	F	15.0%	85.0%	24,560	139,515	R-CE 11
Life Insurance	3,295	F	15.0%	85.0%	493	2,802	R-CE 12
Property, Liability, etc.	24,509	F	15.0%	85.0%	3,669	20,840	R-CE 13
Legal	7,500	F	15.0%	85.0%	1,123	6,377	R-CE 14
Consultants	50,000	F	15.0%	85.0%	7,484	42,516	R-CE 15
Independent Contractor	25,346	F	15.0%	85.0%	3,794	21,552	R-CE 16
From Other Departments	42,015	F	15.0%	85.0%	6,289	35,726	R-CE 17
Other	375	F	15.0%	85.0%	56	319	R-CE 18
Property	650	F	15.0%	85.0%	97	553	R-CE 19
Fleet Equipment	154,750	F	15.0%	85.0%	23,164	131,586	R-CE 20
Licensed Vehicles	10,000	F	15.0%	85.0%	1,497	8,503	R-CE 21
Unlicensed Vehicles	3,000	F	15.0%	85.0%	449	2,551	R-CE 22
Other Equipment	46,715	F	15.0%	85.0%	6,993	39,722	R-CE 23
Buildings and Structures	13,140	F	15.0%	85.0%	1,967	11,173	R-CE 24
Repairs & Maintanence/Utilities	33,770	F	15.0%	85.0%	5,055	28,715	R-CE 25
Grounds	230	F	15.0%	85.0%	34	196	R-CE 26
Garage Parts LIC Vehicle	49,900	F	15.0%	85.0%	7,469	42,431	R-CE 27
Office	10,910	F	15.0%	85.0%	1,633	9,277	R-CE 28
Fuel	46,529	F	15.0%	85.0%	6,965	39,564	R-CE 29
Clothing & Protective Equipment	10,006	F	15.0%	85.0%	1,498	8,508	R-CE 30
Small Tools & Minor Equipment	4,517	F	15.0%	85.0%	676	3,841	R-CE 31
Chemical/Lab	78,254	F	15.0%	85.0%	11,714	66,540	R-CE 32
Janitorial/Shop	410	F	15.0%	85.0%	61	349	R-CE 33
Non Capital Inventory	10,400	F	15.0%	85.0%	1,557	8,843	R-CE 34
Computer Software & Maintenance	46,944	F	15.0%	85.0%	7,027	39,917	R-CE 35
Computer Hardware	13,800	F	15.0%	85.0%	2,066	11,734	R-CE 36
Memberships & Dues	54	F	15.0%	85.0%	8	46	R-CE 37
Mileage/Motor Pool	95	F	15.0%	85.0%	14	81	R-CE 38
Training, Travel in-state	3,536	F	15.0%	85.0%	529	3,007	R-CE 39
Training, Travel out-state	7,850	F	15.0%	85.0%	1,175	6,675	R-CE 40
Telephone	1,661	F	15.0%	85.0%	249	1,412	R-CE 41
Natural Gas	29,584	F	15.0%	85.0%	4,428	25,156	R-CE 42
Electricity	297,145	F	15.0%	85.0%	44,478	252,667	R-CE 43
Water	26,583	F	15.0%	85.0%	3,979	22,604	R-CE 44
Wireless Service	2,352	F	15.0%	85.0%	352	2,000	R-CE 45
Mobile Phone Service	4,537	F	15.0%	85.0%	679	3,858	R-CE 46
Right-Of-Way	50,000	F	15.0%	85.0%	7,484	42,516	R-CE 47
Total Collection System	$2,637,080				$394,733	$2,242,347	R-CE 48

	2011	Allocation Method	Allocation % Regional	Allocation % Local	Allocation $ Regional	Allocation $ Local	Line
Engineering							
Full Time	$217,624	C	31.0%	69.0%	$67,482	$150,142	R-EE 1
Overtime	975	C	31.0%	69.0%	302	673	R-EE 2
Standby	0	C	31.0%	69.0%	0	0	R-EE 3
Part-Time	0	C	31.0%	69.0%	0	0	R-EE 4
Sick Leave & Benefits	3,941	C	31.0%	69.0%	1,222	2,719	R-EE 5
Deferred Compensation	4,419	C	31.0%	69.0%	1,370	3,049	R-EE 6
Social Security & Medicare	16,502	C	31.0%	69.0%	5,117	11,385	R-EE 7
Retirement Compensation	29,308	C	31.0%	69.0%	9,088	20,220	R-EE 8
Other Post Employment Benefits	10,882	C	31.0%	69.0%	3,374	7,508	R-EE 9
Group Insurance	30,650	C	31.0%	69.0%	9,504	21,146	R-EE 10
Life Insurance	575	C	31.0%	69.0%	178	397	R-EE 11
Consultants	115,000	C	31.0%	69.0%	35,660	79,340	R-EE 12
Independent Contractor	5,145	C	31.0%	69.0%	1,595	3,550	R-EE 13
Utilities	25,000	C	31.0%	69.0%	7,752	17,248	R-EE 14
Office	1,000	C	31.0%	69.0%	310	690	R-EE 15
Computer Software & Maintenance	7,094	C	31.0%	69.0%	2,200	4,894	R-EE 16
Memberships & Dues	462	C	31.0%	69.0%	143	319	R-EE 17
Subscriptions & Publication	500	C	31.0%	69.0%	155	345	R-EE 18
Mileage/Motor Pool	125	C	31.0%	69.0%	39	86	R-EE 19
Training, Travel in-state	450	C	31.0%	69.0%	140	310	R-EE 20
Training, Travel out-state	2,800	C	31.0%	69.0%	868	1,932	R-EE 21
Total Engineering	$472,452				$146,500	$325,952	R-EE 22
Environment							
Full Time	$89,142	D	65.5%	34.5%	$58,348	$30,794	R-EVE 1
Part-Time	24,480	D	65.5%	34.5%	16,024	8,456	R-EVE 2
Sick Leave & Benefits	551	D	65.5%	34.5%	361	190	R-EVE 3
Deferred Compensation	3,566	D	65.5%	34.5%	2,334	1,232	R-EVE 4
Social Security & Medicare	8,783	D	65.5%	34.5%	5,749	3,034	R-EVE 5
Retirement Compensation	11,813	D	65.5%	34.5%	7,732	4,081	R-EVE 6
Other Post Employment Benefits	4,386	D	65.5%	34.5%	2,871	1,515	R-EVE 7
Group Insurance	9,083	D	65.5%	34.5%	5,945	3,138	R-EVE 8
Life Insurance	228	D	65.5%	34.5%	149	79	R-EVE 9
Independent Contractor	100	D	65.5%	34.5%	65	35	R-EVE 10
From Other Departments	2,000	D	65.5%	34.5%	1,309	691	R-EVE 11
Other	1,000	D	65.5%	34.5%	655	345	R-EVE 12
Hazardous Waste	2,000	D	65.5%	34.5%	1,309	691	R-EVE 13
Engineering & Testing	5,000	D	65.5%	34.5%	3,273	1,727	R-EVE 14
Publishing & Advertising	2,900	D	65.5%	34.5%	1,898	1,002	R-EVE 15
Property	1,500	D	65.5%	34.5%	982	518	R-EVE 16
Technology Equipment	2,398	D	65.5%	34.5%	1,570	828	R-EVE 17
Other Equipment	750	D	65.5%	34.5%	491	259	R-EVE 18
Office	6,270	D	65.5%	34.5%	4,104	2,166	R-EVE 19
Clothing & Protective Equipment	883	D	65.5%	34.5%	578	305	R-EVE 20
Small Tools & Minor Equipment	330	D	65.5%	34.5%	216	114	R-EVE 21
Chemical/Lab	850	D	65.5%	34.5%	556	294	R-EVE 22
Other (Supplies & Materials)	11,000	D	65.5%	34.5%	7,200	3,800	R-EVE 23
Computer Software & Maintenance	1,750	D	65.5%	34.5%	1,145	605	R-EVE 24
Memberships & Dues	610	D	65.5%	34.5%	399	211	R-EVE 25
Subscription & Publications	290	D	65.5%	34.5%	190	100	R-EVE 26
Mileage/Motor Pool	350	D	65.5%	34.5%	229	121	R-EVE 27
Training, Travel in-state	1,400	D	65.5%	34.5%	916	484	R-EVE 28
Training, Travel out-state	6,800	D	65.5%	34.5%	4,451	2,349	R-EVE 29
Mobile Phone Service	905	D	65.5%	34.5%	592	313	R-EVE 30
Total Environmental	$201,118				$131,643	$69,475	R-EVE 31

	2011	Allocation Method	Allocation % Regional	Allocation % Local	Allocation $ Regional	Allocation $ Local	Line
Treatment							
Full Time	$1,486,220	I	100.0%	0.0%	$1,486,220	$0	R-TE 1
Overtime	52,712	I	100.0%	0.0%	52,712	0	R-TE 2
Standby	4,940	I	100.0%	0.0%	4,940	0	R-TE 3
Part-Time	9,450	I	100.0%	0.0%	9,450	0	R-TE 4
Sick Leave & Benefits	60,864	I	100.0%	0.0%	60,864	0	R-TE 5
Deferred Compensation	10,414	I	100.0%	0.0%	10,414	0	R-TE 6
Social Security & Medicare	117,509	I	100.0%	0.0%	117,509	0	R-TE 7
Retirement Compensation	211,505	I	100.0%	0.0%	211,505	0	R-TE 8
Other Post Employment Benefits	78,531	I	100.0%	0.0%	78,531	0	R-TE 9
Worker's Compensation	5,809	I	100.0%	0.0%	5,809	0	R-TE 10
Group Insurance	229,851	I	100.0%	0.0%	229,851	0	R-TE 11
Life Insurance	5,298	I	100.0%	0.0%	5,298	0	R-TE 12
Property, Liability, etc.	73,527	I	100.0%	0.0%	73,527	0	R-TE 13
Consultants	25,000	I	100.0%	0.0%	25,000	0	R-TE 14
Independent Contractor	215,971	I	100.0%	0.0%	215,971	0	R-TE 15
From Other Departments - Utility Billing	165,774	J	0.0%	100.0%	0	165,774	R-TE 16
Other	410	I	100.0%	0.0%	410	0	R-TE 17
Property	6,975	I	100.0%	0.0%	6,975	0	R-TE 18
Technology Equipment	29,198	I	100.0%	0.0%	29,198	0	R-TE 19
Fleet Equipment	199,250	I	100.0%	0.0%	199,250	0	R-TE 20
Licensed Vehicles	3,000	I	100.0%	0.0%	3,000	0	R-TE 21
Unlicensed Vehicles	10,800	I	100.0%	0.0%	10,800	0	R-TE 22
Other Equipment	26,005	I	100.0%	0.0%	26,005	0	R-TE 23
Buildings and Structures	38,000	I	100.0%	0.0%	38,000	0	R-TE 24
Street, Curb, & Sidewalk	3,500	I	100.0%	0.0%	3,500	0	R-TE 25
Repairs & Maintanence/Utilities	344,520	I	100.0%	0.0%	344,520	0	R-TE 26
Grounds	8,550	I	100.0%	0.0%	8,550	0	R-TE 27
Garage Parts LIC Vehicle	85,000	I	100.0%	0.0%	85,000	0	R-TE 28
Office	18,925	I	100.0%	0.0%	18,925	0	R-TE 29
Fuel	123,449	I	100.0%	0.0%	123,449	0	R-TE 30
Clothing & Protective Equipment	18,200	I	100.0%	0.0%	18,200	0	R-TE 31
Small Tools & Minor Equipment	7,200	I	100.0%	0.0%	7,200	0	R-TE 32
Chemical/Lab	268,367	I	100.0%	0.0%	268,367	0	R-TE 33
Janitorial/Shop	49,260	I	100.0%	0.0%	49,260	0	R-TE 34
Other (Supplies & Materials)	900	I	100.0%	0.0%	900	0	R-TE 35
Non Capital Inventory	21,685	I	100.0%	0.0%	21,685	0	R-TE 36
Computer Software & Maintenance	40,295	I	100.0%	0.0%	40,295	0	R-TE 37
Computer Hardware	16,900	I	100.0%	0.0%	16,900	0	R-TE 38
Memberships & Dues	987	I	100.0%	0.0%	987	0	R-TE 39
Subscriptions & Publications	3,540	I	100.0%	0.0%	3,540	0	R-TE 40
Mileage/Motor Pool	290	I	100.0%	0.0%	290	0	R-TE 41
Training, Travel in-state	2,822	I	100.0%	0.0%	2,822	0	R-TE 42
Training, Travel out-state	2,564	I	100.0%	0.0%	2,564	0	R-TE 43
Training In-house	4,170	I	100.0%	0.0%	4,170	0	R-TE 44
Telephone	9,070	I	100.0%	0.0%	9,070	0	R-TE 45
Natural Gas	76,472	I	100.0%	0.0%	76,472	0	R-TE 46
Electricity	587,166	I	100.0%	0.0%	587,166	0	R-TE 47
Water	23,304	I	100.0%	0.0%	23,304	0	R-TE 48
Storm Sewer	30,977	I	100.0%	0.0%	30,977	0	R-TE 49
Sanitation	71,046	I	100.0%	0.0%	71,046	0	R-TE 50
Wireless Service	0	I	100.0%	0.0%	0	0	R-TE 51
Mobile Phone Service	7,730	I	100.0%	0.0%	7,730	0	R-TE 52
Miscellaneous	750	I	100.0%	0.0%	750	0	R-TE 53
State Fees	102,150	I	100.0%	0.0%	102,150	0	R-TE 54
Total Treatment	$4,996,802				$4,831,028	$165,774	R-TE 55

	2011	Allocation Method	Allocation % Regional	Allocation % Local	Allocation $ Regional	Allocation $ Local	Line
Wastewater/Street							
Full Time	$18,849	J	0.0%	100.0%	$0	$18,849	R-WSE 1
Part-Time	23,760	J	0.0%	100.0%	0	23,760	R-WSE 2
Sick Leave & Benefits	533	J	0.0%	100.0%	0	533	R-WSE 3
Social Security & Medicare	3,300	J	0.0%	100.0%	0	3,300	R-WSE 4
Retirement Compensation	2,552	J	0.0%	100.0%	0	2,552	R-WSE 5
Other Post Employment Benefits	948	J	0.0%	100.0%	0	948	R-WSE 6
Group Insurance	3,737	J	0.0%	100.0%	0	3,737	R-WSE 7
Life Insurance	90	J	0.0%	100.0%	0	90	R-WSE 8
Fleet Equipment	1,003	J	0.0%	100.0%	0	1,003	R-WSE 9
Utilities	66,790	J	0.0%	100.0%	0	66,790	R-WSE 10
Garage Parts LIC Vehicle	834	J	0.0%	100.0%	0	834	R-WSE 11
Fuel	442	J	0.0%	100.0%	0	442	R-WSE 12
Non Capital Inventory	2,300	J	0.0%	100.0%	0	2,300	R-WSE 13
Total Wastewater/Street	$125,138				$0	$125,138	R-WSE 14
TOTAL WASTEWATER O&M EXPENSES	**$8,432,590**				**$5,503,904**	**$2,928,686**	R-TOM 1
Debt Service							
Regional Debt Payment							
SRF #16 - East Side Trunk Sewer & Lift Stations	$213,381	I	100.0%	0.0%	$213,381	$0	R-RDS 1
SRF #18 - Wastewater Systems Improvement Projects	151,657	I	100.0%	0.0%	151,657	0	R-RDS 2
SRF #21A - ESSS Phase 1 Project	777,863	I	100.0%	0.0%	777,863	0	R-RDS 3
SRF #21B - ESSS Phase 1 Project	1,083,961	I	100.0%	0.0%	1,083,961	0	R-RDS 4
SRF #23 - ESSS, Brandon Rd. Pumping, & Basin 13	911,797	I	100.0%	0.0%	911,797	0	R-RDS 5
SRF #25 - Basin 13 Regional collection	197,025	I	100.0%	0.0%	197,025	0	R-RDS 6
SRF #26 - Central Main	362,018	I	100.0%	0.0%	362,018	0	R-RDS 7
SRF #28 - Water Reclamation Facility Energy Recovery	38,423	I	100.0%	0.0%	38,423	0	R-RDS 8
SRF #29 - Basin 13 Trunk Sewer and Pipe Lining project	72,866	I	100.0%	0.0%	72,866	0	R-RDS 9
SRF #30 - Central Main Interceptor - Phase 3, Segments 2, 3, &	470,797	I	100.0%	0.0%	470,797	0	R-RDS 10
SRF #32 - Central Main Interceptor - Phase 3, Segments 5 & 6	0	I	100.0%	0.0%	0	0	R-RDS 11
New Revenue Bonds	0	I	100.0%	0.0%	0	0	R-RDS 12
New Low Interest Loans	0	I	100.0%	0.0%	0	0	R-RDS 13
Total Regional Debt Service	$4,279,788				$4,279,788	$0	R-RDS 14
Less: Regional SDCs							
≤ 50% of Reg. SDCs Received	$0	I	100.0%	0.0%	$0	$0	R-RDS 15
Net Regional Debt Service Payment	$4,279,788				$4,279,788	$0	R-RDS 16
Local Debt Payment							
SRF #1	$188,802	J	0.0%	100.0%	$0	$188,802	R-LDS 1
SRF #14	608,240	J	0.0%	100.0%	0	608,240	R-LDS 2
SRF #15 - Elimination of Lift Station	174,162	J	0.0%	100.0%	0	174,162	R-LDS 3
SRF #16 - Westward Ho Trunk Line & Sanitary Sewer Pipe Linir	86,311	J	0.0%	100.0%	0	86,311	R-LDS 4
SRF #18 - Wastewater Systems Improvement Projects	284,390	J	0.0%	100.0%	0	284,390	R-LDS 5
SRF #23 - Basin 16	257,174	J	0.0%	100.0%	0	257,174	R-LDS 6
SRF #25 - Basin 13, Odor Control System	86,057	J	0.0%	100.0%	0	86,057	R-LDS 7
SRF #29 - Basin 13 Trunk Sewer and Pipe Lining project	16,321	J	0.0%	100.0%	0	16,321	R-LDS 8
SRF #32 - Dakota Ave. - Russell to 3rd St & Pipe Lining Project	0	J	0.0%	100.0%	0	0	R-LDS 9
New Revenue Bonds	0	J	0.0%	100.0%	0	0	R-LDS 10
New Low Interest Loans	0	J	0.0%	100.0%	0	0	R-LDS 11
Total Local Debt Service	$1,701,457				$0	$1,701,457	R-LDS 12
Less: Local SDCs							
≤ 50% of Local SDCs Received	$0	J	0.0%	100.0%	$0	$0	R-LDS 13
Net Local Debt Service Payment	$1,701,457				$0	$1,701,457	R-LDS 14
Net Debt Service Payments	**$5,981,245**				**$4,279,788**	**$1,701,457**	R-NDS 1

City of Sioux Falls Regional Wastewater System
Step 2 - Exhibit 6
Regional vs. Local - Revenue Requirement - Projected 2010 - 2015

	2011	Allocation Method	Allocation % Regional	Allocation % Local	Allocation $ Regional	Allocation $ Local	Line
Capital Improvements Funded From Rates							
Regional Capital Improv. Funded From Rates							
Existing Regional Assets	$3,554,665	I	100.0%	0.0%	$3,554,665	$0	R-RCIP 1
New Expansion Projects	0	I	100.0%	0.0%	0	0	R-RCIP 2
Total Regional Capital Improv. Funded From Rates	$3,554,665				$3,554,665	$0	R-RCIP 3
Local (Collection) Capital Improv. Funded From Rates							
Existing Regional Assets	$765,465	J	0.0%	100.0%	$0	$765,465	R-LCIP 1
New Expansion Projects	0	J	0.0%	100.0%	0	0	R-LCIP 2
Total Local Capital Improv. Funded From Rates	$765,465				$0	$765,465	R-LCIP 3
Total Capital Improvement Projects Funded From Rates	**$4,320,130**				**$3,554,665**	**$765,465**	R-TCIP 1
Change in Working Capital +/-							
Operating Reserve	$0	B	49.8%	50.2%	$0	$0	R-CWC 1
Repair & Replacement Reserve	0	B	49.8%	50.2%	0	0	R-CWC 2
Bond Reserve	0	B	49.8%	50.2%	0	0	R-CWC 3
Total Change in Working Capital	$0				$0	$0	R-CWC 4
TOTAL REVENUE REQUIREMENT	**$18,733,965**				**$13,338,357**	**$5,395,608**	R-TRR 1
Balance/(Deficiency) of Funds Before Rate Adjustment	**($0)**				**$228,940**	**($228,941)**	
Balance as a % of Rate Adjustment Required	**0.0%**				**-1.7%**	**4.5%**	
Proposed Rate Adjustment	**0.0%**				**0.0%**	**0.0%**	
Additional Revenue with Proposed Rate Adjustment	**$0**				**$0**	**$0**	
Balance/Deficiency of Funds After Proposed Rate Adjustment	**($0)**				**$228,940**	**($228,941)**	
Additional Rate Adjustment Required	**0.0%**				**-1.7%**	**4.5%**	
Total Revenue Requirement - $ / 1,000 gallons					$2.61	$1.14	

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 7
Development of Volume Allocation Factor

Line	2010 Annual Flow (1,000 gal) [1]	13.7% Local Inflow & Infiltration	2.4% Regional Inflow & Infiltration	Total Annual Flow at Plant (1,000 gal)	Average Daily Flow At Plant (MGD) [2]	Total Regional Annual Flow At Plant (1,000 gal)	Average Regional Daily Flow At Plant (MGD)	% of Total
City of Sioux Falls	4,740,000	647,883	114,051	5,501,933	15.07	4,854,051	13.30	92.9%
Existing Wholesale Customers								
Brandon	108,562	0	2,612	111,174	0.30	111,174	0.30	2.1%
Harrisburg	177,000	0	4,259	181,259	0.50	181,259	0.50	3.5%
Prairie Meadows	37,675	0	907	38,582	0.11	38,582	0.11	0.7%
Renner	40,030	0	963	40,993	0.11	40,993	0.11	0.8%
Potential New Wholesale Customers								
Baltic	0	0	0	0	0.00	0	0.00	0.0%
Canton	0	0	0	0	0.00	0	0.00	0.0%
Corson	0	0	0	0	0.00	0	0.00	0.0%
Crooks	0	0	0	0	0.00	0	0.00	0.0%
Garretson	0	0	0	0	0.00	0	0.00	0.0%
Hartford	0	0	0	0	0.00	0	0.00	0.0%
Lennox	0	0	0	0	0.00	0	0.00	0.0%
Tea	0	0	0	0	0.00	0	0.00	0.0%
Valley Springs	0	0	0	0	0.00	0	0.00	0.0%
Worthing	0	0	0	0	0.00	0	0.00	0.0%
Total	5,103,267	647,883	122,791	5,873,941	16.09	5,226,058	14.32	100.0%
			Total Plant Flow [3] [4]	5,872,000	16.09			
			Plant Design Capacity [5]		21.00			
Allocation Factor								**(VOL)**

NOTES:

[1] Annual billed flows for wholesale customers provided by the City of Sioux Falls in email 3/8/2011 attachment "Billing Summary 2008-2010". Annual flow for Sioux Falls is calculated by subtracting the wholesale customer billed flow, and backing out I&I, from annual flow.

[2] Average daily flow at plant calculated by dividing the total annual flow at the plant by 365 and 1,000 gallons. Harrisburg annual flow is calculated based on the flow records and billing for 2010, as provided by the City, for the month of October, 2010.

[3] Total plant flow for 2010 was provided in the reclamation plant report files. 2008 - 2010 average is 5.8 MG. Actual 2010 was 6.7 MG. 5.6 MG was noted in the June 2010 presentation to City Council on utility rates.

[4] Average Daily Flow is calculated on total annual flow from the reclamation plant annual/monthly report files.

[5] Plant design capacity from June 2010 presentation to City Council on utility rates.

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 8
Development of Capacity Allocation Factor

	Average Day Use (MGD)	Peaking Factors [1]	Operational Peak Day Use (MGD)[2]	% of Total Plant Capacity	Contract Max. Peak Day Use (MGD) [3]	% of Total Contract Capacity
City of Sioux Falls	13.30	2.00	26.60	95.6%	26.60	96.1%
Existing Wholesale Customers						
Brandon [A] [5]	0.30	1.00	0.30	1.1%	0.40	1.4%
Harrisburg [B] [5]	0.50	1.00	0.50	1.8%	0.52	1.9%
Prairie Meadows [C]	0.11	2.00	0.21	0.8%	0.06	0.2%
Renner [D]	0.11	2.00	0.22	0.8%	0.11	0.4%
Potential New Wholesale Customers						
Baltic	0.00	2.00	0.00	0.0%	0.00	0.0%
Canton	0.00	2.00	0.00	0.0%	0.00	0.0%
Corson	0.00	2.00	0.00	0.0%	0.00	0.0%
Crooks	0.00	2.00	0.00	0.0%	0.00	0.0%
Garretson	0.00	2.00	0.00	0.0%	0.00	0.0%
Hartford	0.00	2.00	0.00	0.0%	0.00	0.0%
Lennox	0.00	2.00	0.00	0.0%	0.00	0.0%
Tea	0.00	2.00	0.00	0.0%	0.00	0.0%
Valley Springs	0.00	2.00	0.00	0.0%	0.00	0.0%
Worthing	0.00	2.00	0.00	0.0%	0.00	0.0%
Total	14.32		27.83	100.0%	27.68	100.0%
			85% of Peak Flow Capacity [4]		29.75	
			Estimated Design Peak Capacity [2]		35.00	
Allocation Factor				**(TCAP - 1)**		**(TCAP - 2)**

NOTES:

[1] Peaking factor of 3.5 is the assigned peaking factor developed by HDR in the City of Sioux Falls, Comprehensive Wastewater Regional Study for Sioux Falls Area spreadsheet, sent via email 1/28/2011. For study purposes, including a peaking factor of 2.

[2] Plant design capacity is 21 MGD, as noted within the City's June 2010 rate presentation to Council . Plant is designed to handle peak instantaneous flow of 35.0 MGD as noted of Water Reclamation Master Plan, page 61 of

[3] Maximum peak day use for Sioux Falls is calculated by subtracting the wholesale customer billed flow from 85% peak flow capacity.

[4] The City must begin design of new capacity when 85% of peak capacity is used. 35 MGD multiplied by 85% = 29.75 MGD.

[5] The lower peaking factor reflects credit for city's own lagoons and equalization.

CONTRACT DATA:

[A] In contract, Brandon can contribute up to a maximum of 12 million gallons per month. Signed contract 1996.

[B] Harrisburg contract capacity limit is 15.531 MG/month, page 4 of contract dated December 2009.

[C] Capacity limit shall not exceed 59,000 gallons per day. Contract signed 1997.

[D] Capacity limit shall not exceed 107,000 gallons per day, Contract signed 1996.

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 9
Development of the Strength Allocation Factor

		Bio-Chemical Oxygen Demand (BOD)			Total Suspended Solids (TSS)		
	Annual Flow (1,000 gal.)	Estimated (mg/l) [1]	Calculated Pounds	% of Total	Estimated (mg/l) [1]	Calculated Pounds	% of Total
City of Sioux Falls *	4,740,000	224	8,855,078	95.91%	218	8,617,889	95.51%
Existing Wholesale Customers							
Brandon *	108,562	224	202,949	2.20%	218	197,379	2.19%
Harrisburg *	177,000	20	29,524	0.32%	45	66,428	0.74%
Prairie Meadows *	37,675	224	70,383	0.76%	218	68,498	0.76%
Renner *	40,030	224	74,782	0.81%	218	72,779	0.81%
Potential New Wholesale Customers							
Baltic	0	225	0	0.00%	218	0	0.00%
Canton	0	225	0	0.00%	218	0	0.00%
Corson	0	225	0	0.00%	218	0	0.00%
Crooks	0	225	0	0.00%	218	0	0.00%
Garretson	0	225	0	0.00%	218	0	0.00%
Hartford	0	225	0	0.00%	218	0	0.00%
Lennox	0	225	0	0.00%	218	0	0.00%
Tea	0	225	0	0.00%	218	0	0.00%
Valley Springs	0	225	0	0.00%	218	0	0.00%
Worthing	0	225	0	0.00%	218	0	0.00%
Total	5,103,267		9,232,716	100%		9,022,973	100%

Allocation Factor		**(BOD)**		**(TSS)**
	* Total for 2010 [3]	11,078,813	* Total for 2010 [3]	11,039,614
	Average Plant Design Loadings [2]	17,681,695	Average Plant Design Loadings [2]	12,431,535

NOTES:

[1] Average factor strength levels calculated by averaging the 2008, 2009, and 2010 average strength levels. Data provided by the City in "SF Reg. Study" file, Feb. 16, 2011.

[2] Average plant design loadings calculated by multiplying the average capacity daily loadings by 365. The average design capacity daily loadings were found on page 3 of 82, in the Master Plan Appendix.

[3] Total for 2010 from the City's reclamation plant annual/monthly report files for 2010.

[4] Harrisburg measured average BOD5-6 mg/l, TSS-10 mg/l, Assumed 7 mg/l TKN from selected March, April, August 2010 data.

[5] Brandon loading is generally equal to the domestic waste concentration based on discussions with the City of Brandon.

[6] Sioux Falls, Renner, Prairie Meadows, Brandon used resulting concentration from Total Loading minus Harrisburg as no data is available for Individual systems.

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 9
Development of the Strength Allocation Factor

		Bio-Chemical Oxygen Demand (BOD)		Total Suspended Solids (TSS)
		TKN		
	Annual Flow (CCF)	Estimated (mg/l) [1]	Calculated Pounds	% of Total
City of Sioux Falls *	4,740,000	41	1,620,796	95.38%
Existing Wholesale Customers				
Brandon *	108,562	41	37,122	2.18%
Harrisburg *	177,000	10	14,762	0.87%
Prairie Meadows *	37,675	41	12,883	0.76%
Renner *	40,030	41	13,688	0.81%
Potential New Wholesale Customers				
Baltic	0	42	0	0.00%
Canton	0	42	0	0.00%
Corson	0	42	0	0.00%
Crooks	0	42	0	0.00%
Garretson	0	42	0	0.00%
Hartford	0	42	0	0.00%
Lennox	0	42	0	0.00%
Tea	0	42	0	0.00%
Valley Springs	0	42	0	0.00%
Worthing	0	42	0	0.00%
Total	5,103,267		1,699,250	100%

Allocation Factor **(TKN)**

* Total for 2010 [3]	1,969,483
Average Plant Design Loadings [2]	1,977,935

NOTES:

[1] Average factor strength levels calculated by averaging the 2008, 2009, and 2010 average strength levels. Data provided by the City in "SF Reg. Study" file, Feb. 16, 2011.

[2] Average plant design loadings calculated by multiplying the average capacity daily loadings by 365. The average design capacity daily loadings were found on page 3 of 82, in the Master Plan Appendix.

[3] Total for 2010 from the City's reclamation plant annual/monthly report files for 2010.

[4] Harrisburg measured average BOD5-6 mg/l, TSS-10 mg/l, Assumed 7 mg/l TKN from selected March, April, August 2010 data.

[5] Brandon loading is generally equal to the domestic waste concentration based on discussions with the City of Brandon.

[6] Sioux Falls, Renner, Prairie Meadows, Brandon used resulting concentration from Total Loading minus Harrisburg as no data is available for Individual systems.

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 10
Development of the Customer Allocation Factor

	Actual Customer		Customer Service & Accounting			
	Number of Customers	% of Total	Number of Bills	Weighting Factor	Weighted Customer	% of Total
City of Sioux Falls	1	20.0%	1	1.0	1	11.1%
Existing Wholesale Customers						
Brandon	1	20.0%	1	2.0	2	22.2%
Harrisburg	1	20.0%	1	2.0	2	22.2%
Prairie Meadows	1	20.0%	1	2.0	2	22.2%
Renner	1	20.0%	1	2.0	2	22.2%
Potential New Wholesale Customers						
Baltic	0	0.0%	0	2.0	0	0.0%
Canton	0	0.0%	0	2.0	0	0.0%
Corson	0	0.0%	0	2.0	0	0.0%
Crooks	0	0.0%	0	2.0	0	0.0%
Garretson	0	0.0%	0	2.0	0	0.0%
Hartford	0	0.0%	0	2.0	0	0.0%
Lennox	0	0.0%	0	2.0	0	0.0%
Tea	0	0.0%	0	2.0	0	0.0%
Valley Springs	0	0.0%	0	2.0	0	0.0%
Worthing	0	0.0%	0	2.0	0	0.0%
Total	5	100.0%	5		9	100.0%
Allocation Factor		**(AC)**				**(WCA)**

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 11
Development of the Revenue Related Allocation Factor

	Projected Regional Revenue 2011	% of Total Rate Revenue
City of Sioux Falls	$12,453,733	93.4%
Existing Wholesale Customers		
Brandon	$153,072	1.1%
Harrisburg	472,590	3.5%
Prairie Meadows	126,588	0.9%
Renner	121,691	0.9%
Potential New Wholesale Customers		
Baltic	$0	0.0%
Canton	0	0.0%
Corson	0	0.0%
Crooks	0	0.0%
Garretson	0	0.0%
Hartford	0	0.0%
Lennox	0	0.0%
Tea	0	0.0%
Valley Springs	0	0.0%
Worthing	0	0.0%
Total	$13,327,674	100.0%

Allocation Factor **(RR)**

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 12
Functionalization and Classification of the Plant in Service

Account Name	Total Plant in Service 12/2010	Allocation Method	Allocation % Regional	Allocation % Local	Allocation % Regional	Allocation % Local	Line
Various Plant							
Shelving, Benches, Warehouse, etc.	$291,728	B	49.8%	50.2%	$145,424	$146,303	
Total Intangible Plant	$291,728				$145,424	$146,303	V 1
Collection System							
Local - Lateral Lines	$55,830,624	J	0.0%	100.0%	$0	$55,830,624	C1
Local - Trunk Sewer Lines	55,676,091	J	0.0%	100.0%	0	55,676,091	C2
Local - Interceptor	1,229,101	J	0.0%	100.0%	0	1,229,101	C3
Local - Lift Stations	411,789	J	0.0%	100.0%	0	411,789	C4
Local - Force Mains (in pumping plant equip.)	0	J	0.0%	100.0%	0	0	C5
Regional - Trunk Sewer Lines	20,089,240	I	100.0%	0.0%	20,089,240	0	C6
Regional - Interceptor	17,909,896	I	100.0%	0.0%	17,909,896	0	C7
Regional - Lift Stations	9,402,237	I	100.0%	0.0%	9,402,237	0	C8
Regional - Force Mains (in pumping plant equip.)	0	I	100.0%	0.0%	0	0	C9
Collection: Land	103,006	C	31.0%	69.0%	31,940	71,065	C10
Collection: Equipment	36,799	C	31.0%	69.0%	11,411	25,388	C11
Collection: Building & Structure	230,530	C	31.0%	69.0%	71,484	159,047	C12
Total Collection System	$160,919,314				$47,516,208	$113,403,105	C13
Pumping Plant							
Local - Pumping Facilities	$867,571	J	0.0%	100.0%	$0	$867,571	P 1
Regional - Pumping Facilities	3,842,906	I	100.0%	0.0%	3,842,906	0	P 2
Pumping Plant: Equipment	1,089,874	C	31.0%	69.0%	337,952	751,922	P 3
Total Pumping Plant	$5,800,351				$4,180,858	$1,619,493	P 4
Treatment Plant							
Treatment: Land	$110,864	I	100.0%	0.0%	$110,864	$0	TP 1
Equalization Basin	4,750,121	I	100.0%	0.0%	4,750,121	0	TP 2
Pumping Plant	4,176,386	I	100.0%	0.0%	4,176,386	0	TP 3
Headworks-Preliminary Treatment	4,815,384	I	100.0%	0.0%	4,815,384	0	TP 4
Primary Treatment							
Clarifiers	1,871,248	I	100.0%	0.0%	1,871,248	0	TP 5
Primary Sludge Pumping	1,815,379	I	100.0%	0.0%	1,815,379	0	TP 6
In-plant Pumping	484,523	I	100.0%	0.0%	484,523	0	TP 7
Secondary Treatment							
Trickling Filters	7,843,260	I	100.0%	0.0%	7,843,260	0	TP 8
Intermediate Clarifier	1,465,105	I	100.0%	0.0%	1,465,105	0	TP 9
Process Pumping	5,339,233	I	100.0%	0.0%	5,339,233	0	TP 10
All Other/General	3,158,162	I	100.0%	0.0%	3,158,162	0	TP 11
Total Treatment Plant	$35,829,665				$35,829,665	$0	TP 12
Tertiary Plant							
Tertiary: Land	$118,114	I	100.0%	0.0%	$118,114	$0	T 1
Activated Sludge	3,998,921	I	100.0%	0.0%	3,998,921	0	T 2
Final Clarifiers	1,876,430	I	100.0%	0.0%	1,876,430	0	T 3
RAS/WAS Pumping	621,379	I	100.0%	0.0%	621,379	0	T 4
Aeration	496,200	I	100.0%	0.0%	496,200	0	T 5
Filtration	4,691,035	I	100.0%	0.0%	4,691,035	0	T 6
Backwash System	742,192	I	100.0%	0.0%	742,192	0	T 7
Disinfection	269,584	I	100.0%	0.0%	269,584	0	T 8
Post-aeration	569,472	I	100.0%	0.0%	569,472	0	T 9
All Other/General	5,046,586	I	100.0%	0.0%	5,046,586	0	T 10
Total Tertiary Plant	$18,429,913				$18,429,913	$0	T 11

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 12
Functionalization and Classification of the Plant in Service

Account Name	Total Plant in Service 12/2010	Allocation Method	Allocation % Regional	Allocation % Local	Allocation % Regional	Allocation % Local	Line
Biosolids Plant							
Biosolids: Land	$100,800	I	100.0%	0.0%	$100,800	$0	B 1
Building & Structure	1,772,391	I	100.0%	0.0%	1,772,391	0	B 2
All Other/General	6,212,659	I	100.0%	0.0%	6,212,659	0	B 3
Equipment	289,356	I	100.0%	0.0%	289,356	0	B 4
Total Biosolids Plant	$8,375,207				$8,375,207	$0	B 5
Total Plant Before General	***$229,646,176***				***$114,477,275***	***$115,168,901***	
% of Total Plant Before General	100.0%				49.8%	50.2%	
General Plant							
General (Vehicles & Equipment)	$21,050	B	49.8%	50.2%	$10,493	$10,557	
Total General Plant	$21,050				$10,493	$10,557	G1
TOTAL PLANT IN SERVICE	**$229,667,226**				**$114,487,768**	**$115,179,458**	
Less: Accumulated Depreciation							
Various Plant	$75,581	B	49.8%	50.2%	$37,677	$37,904	AD 1
Collection System	50,847,263	As Collection System	29.5%	70.5%	15,014,165	35,833,098	AD 2
Pumping Plant	2,846,341	As Pumping Plant	72.1%	27.9%	2,051,625	794,716	AD 3
Treatment Plant	19,568,883	I	100.0%	0.0%	19,568,883	0	AD 4
Tertiary Plant	13,654,802	I	100.0%	0.0%	13,654,802	0	AD 5
Biosolids Plant	4,945,171	I	100.0%	0.0%	4,945,171	0	AD 6
General Plant	11,417	B	49.8%	50.2%	5,691	5,726	AD 7
Total Accumulated Depreciation	$91,949,457				$55,278,014	$36,671,443	AD 8
NET PLANT IN SERVICE	**$137,717,769**				**$59,209,754**	**$78,508,015**	
Plus: Working Capital							
Working Capital	$1,039,634	B	49.8%	50.2%	$518,252	$521,383	
Total Working Capital	$1,039,634				$518,252	$521,383	WC 1
Less: Contributed Capital							
Various Cost Recovery Payments [1]	$4,058,607	F	15.0%	85.0%	$607,515	$3,451,091	CC 1
WSSS Cost Recovery Payments	4,708,144	I	100.0%	0.0%	4,708,144	0	CC 2
ESSS Cost Recovery Payments	1,908,320	H	54.9%	45.1%	1,047,613	860,707	CC 3
Total Less: Contributed Capital	$10,675,070				$6,363,272	$4,311,799	CC4
TOTAL RATE BASE	**$128,082,333**				**$53,364,734**	**$74,717,599**	

NOTES:

[1] Contributed Capital is the sum of the the City's asset listing with hand written notations as to cost recovery funded assets, adjusted to apply allocation method "F".

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 13
Regional vs. Local - Annual Depreciantion Expense - Projected 2010 - 2015

	2011	Allocation Method	Allocation % Regional	Allocation % Local	Allocation $ Regional	Allocation $ Local	Line
Annual Depreciation Expense							
Various Plant	$1,975	B	49.8%	50.2%	$985	$991	ANE 1
Collection System	5,363,479	As Collection System	29.5%	70.5%	1,583,727	3,779,753	ANE 2
Pumping Plant	198,007	As Pumping Plant	72.1%	27.9%	142,722	55,285	ANE 3
Treatment Plant	1,251,424	I	100.0%	0.0%	1,251,424	0	ANE 4
Tertiary Plant	388,711	I	100.0%	0.0%	388,711	0	ANE 5
Biosolids Plant	185,559	I	100.0%	0.0%	185,559	0	ANE 6
General Plant	3,085	B	49.8%	50.2%	1,538	1,547	ANE 7
	$7,392,241				$3,554,665	$3,837,575	

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 14
Functionalization and Classification of the Plant in Service

Account Name	Total Regional Plant in Service 12/2010	Volume (VOL)	Capacity (TCAP - 1)	(TCAP - 2)	Strength Related: Bio-Chemical Oxygen Demand (BOD)	Strength Related: Total Suspended Solids (TSS)	Strength Related: Nitrogen (TKN)	Weighted for: Actual Customer (AC)	Weighted for: Customer Acct/Svcs (WCA)	Revenue (RR)	Direct (DA)	Basis of Classification
Various Plant												
Shelving, Benches, Warehouse, etc.	$145,424	$79,264	$30,935	$0	$15,225	$12,551	$7,450	$0	$0	$0	$0	As All Other Regional Plant
Total Intangible Plant	$145,424	$79,264	$30,935	$0	$15,225	$12,551	$7,450	$0	$0	$0	$0	
Collection System												
Local - Lateral Lines	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	Part of Local System
Local - Trunk Sewer Lines	0	0	0	0	0	0	0	0	0	0	0	Part of Local System
Local - Interceptor	0	0	0	0	0	0	0	0	0	0	0	Part of Local System
Local - Lift Stations	0	0	0	0	0	0	0	0	0	0	0	Part of Local System
Local - Force Mains (in pumping plant e	0	0	0	0	0	0	0	0	0	0	0	Part of Local System
Regional - Trunk Sewer Lines	20,089,240	20,089,240	0	0	0	0	0	0	0	0	0	100% VOL
Regional - Interceptor	17,909,896	17,909,896	0	0	0	0	0	0	0	0	0	100% VOL
Regional - Lift Stations	9,402,237	9,402,237	0	0	0	0	0	0	0	0	0	100% VOL
Regional - Force Mains (in pumping plar	0	0	0	0	0	0	0	0	0	0	0	100% VOL
Collection: Land	31,940	31,940	0	0	0	0	0	0	0	0	0	As All Other Collection System
Collection: Equipment	11,411	11,411	0	0	0	0	0	0	0	0	0	As All Other Collection System
Collection: Building & Structure	71,484	71,484	0	0	0	0	0	0	0	0	0	As All Other Collection System
Total Collection System	$47,516,208	$47,516,208	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Pumping Plant												
Local - Pumping Facilities	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	Part of Local System
Regional - Pumping Facilities	3,842,906	3,842,906	0	0	0	0	0	0	0	0	0	100% VOL
Pumping Plant: Equipment	337,952	337,952	0	0	0	0	0	0	0	0	0	As All Other Pumping Plant
Total Pumping Plant	$4,180,858	$4,180,858	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Treatment Plant												
Treatment: Land	$110,864	$22,401	$62,050	$0	$16,925	$8,154	$1,335	$0	$0	$0	$0	As All Other Treatment Plant
Equalization Basin	4,750,121	0	4,750,121	0	0	0	0	0	0	0	0	100% VOL
Pumping Plant	4,176,386	1,378,207	2,798,179	0	0	0	0	0	0	0	0	33% VOL 67% TCAP1
Headworks-Preliminary Treatment	4,815,384	1,589,077	3,226,307	0	0	0	0	0	0	0	0	33% VOL 67% TCAP1
Primary Treatment												
Clarifiers	1,871,248	308,756	626,868	0	374,250	561,374	0	0	0	0	0	17% VOL 34% TCAP1 20% BOD 30% TSS
Primary Sludge Pumping	1,815,379	181,538	0	0	653,536	980,305	0	0	0	0	0	10% VOL 0% TCAP1 36% BOD 54% TSS
In-plant Pumping	484,523	0	484,523	0	0	0	0	0	0	0	0	100% VOL
Secondary Treatment												
Trickling Filters	7,843,260	1,294,138	2,627,492	0	3,529,467	0	392,163	0	0	0	0	17% VOL 34% TCAP1 45% BOD 0% TSS 5% TKN
Intermediate Clarifier	1,465,105	241,742	490,810	0	146,511	586,042	0	0	0	0	0	17% VOL 34% TCAP1 10% BOD 40% TSS
Process Pumping	5,339,233	1,585,752	3,219,558	0	266,962	266,962	0	0	0	0	0	30% VOL 60% TCAP1 5% BOD 5% TSS
All Other/General	3,158,162	638,139	1,767,591	0	482,127	232,268	38,037	0	0	0	0	As All Other Treatment Plant
Total Treatment Plant	$35,829,665	$7,239,750	$20,053,498	$0	$5,469,776	$2,635,104	$431,535	$0	$0	$0	$0	
Tertiary Plant												
Tertiary: Land	$118,114	$21,663	$27,351	$0	$17,502	$22,195	$29,403	$0	$0	$0	$0	As All Other Tertiary Plant
Activated Sludge	3,998,921	959,741	239,935	0	419,887	0	2,379,358	0	0	0	0	24% VOL 6% TCAP1 11% BOD 0% TSS 60% TKN
Final Clarifiers	1,876,430	185,767	377,162	0	591,075	591,075	131,350	0	0	0	0	10% VOL 20% TCAP1 32% BOD 32% TSS 7% TKN
RAS/WAS Pumping	621,379	149,131	37,283	0	65,245	0	369,721	0	0	0	0	24% VOL 6% TCAP1 11% BOD 0% TSS 60% TKN
Aeration	496,200	0	0	0	74,430	0	421,770	0	0	0	0	0% VOL 0% TCAP1 15% BOD 0% TSS 85% TKN
Filtration	4,691,035	774,021	1,571,497	0	703,655	1,641,862	0	0	0	0	0	17% VOL 34% TCAP1 15% BOD 35% TSS
Backwash System	742,192	122,462	248,634	0	111,329	259,767	0	0	0	0	0	17% VOL 34% TCAP1 15% BOD 35% TSS
Disinfection	269,584	53,917	215,667	0	0	0	0	0	0	0	0	20% VOL 80% TCAP1
Post-aeration	569,472	187,926	381,546	0	0	0	0	0	0	0	0	33% VOL 67% TCAP1
All Other/General	5,046,586	925,591	1,168,600	0	747,796	948,319	1,256,281	0	0	0	0	As All Other Tertiary Plant
Total Tertiary Plant	$18,429,913	$3,380,218	$4,267,675	$0	$2,730,919	$3,463,219	$4,587,882	$0	$0	$0	$0	

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 14
Functionalization and Classification of the Plant in Service

Account Name	Total Regional Plant in Service 12/2010	Volume (VOL)	Capacity (TCAP - 1)	(TCAP - 2)	Strength Related: Bio-Chemical Oxygen Demand (BOD)	Strength Related: Total Suspended Solids (TSS)	Strength Related: Nitrogen (TKN)	Weighted for: Actual Customer (AC)	Weighted for: Customer Acct/Svcs (WCA)	Revenue (RR)	Direct (DA)	Basis of Classification
Biosolids Plant												
Biosolids: Land	$100,800	$0	$0	$0	$45,360	$45,360	$10,080	$0	$0	$0	$0	As All Other - Bio-Solids
Building & Structure	1,772,391	0	0	0	797,576	797,576	177,239	0	0	0	0	45% BOD 45% TSS 10% TKN
All Other/General	6,212,659	0	0	0	2,795,697	2,795,697	621,266	0	0	0	0	As All Other - Bio-Solids TKN
Equipment	289,356	0	0	0	130,210	130,210	28,936	0	0	0	0	45% BOD 45% TSS 10% TKN
Total Biosolids Plant	$8,375,207	$0	$0	$0	$3,768,843	$3,768,843	$837,521	$0	$0	$0	$0	
Total Plant Before General	***$114,477,275***	***$62,396,298***	***$24,352,109***	***$0***	***$11,984,763***	***$9,879,716***	***$5,864,388***	***$0***	***$0***	***$0***	***$0***	
% of Total Plant Before General	100.0%	54.5%	21.3%	0.0%	10.5%	8.6%	5.1%	0.0%	0.0%	0.0%	0.0%	(Plant Factor 1)
General Plant												
General (Vehicles & Equipment)	$10,493	$5,719	$2,232	$0	$1,099	$906	$538	$0	$0	$0	$0	As Plant Factor 1
Total General Plant	$10,493	$5,719	$2,232	$0	$1,099	$906	$538	$0	$0	$0	$0	
TOTAL PLANT IN SERVICE	**$114,487,768**	**$62,402,018**	**$24,354,341**	**$0**	**$11,985,862**	**$9,880,622**	**$5,864,925**	**$0**	**$0**	**$0**	**$0**	
Less: Accumulated Depreciation												
Various Plant	$37,677	$20,536	$8,015	$0	$3,944	$3,252	$1,930	$0	$0	$0	$0	As Various Plant
Collection System	15,014,165	15,014,165	0	0	0	0	0	0	0	0	0	As Collection System
Pumping Plant	2,051,625	2,051,625	0	0	0	0	0	0	0	0	0	As Pumping Plant
Treatment Plant	19,568,883	3,954,093	10,952,504	0	2,987,396	1,439,200	235,689	0	0	0	0	As Treatment Plant
Tertiary Plant	13,654,802	2,504,418	3,161,939	0	2,023,350	2,565,914	3,399,182	0	0	0	0	As Tertiary Plant
Biosolids Plant	4,945,171	0	0	0	2,225,327	2,225,327	494,517	0	0	0	0	As Biosolids Plant
General Plant	5,691	3,102	1,211	0	596	491	292	0	0	0	0	As General Plant
Total Accumulated Depreciation	$55,278,014	$23,547,939	$14,123,669	$0	$7,240,613	$6,234,183	$4,131,609	$0	$0	$0	$0	
NET PLANT IN SERVICE	**$59,209,754**	**$38,854,079**	**$10,230,672**	**$0**	**$4,745,248**	**$3,646,439**	**$1,733,316**	**$0**	**$0**	**$0**	**$0**	
Plus: Working Capital												
Working Capital	$518,252	$282,475	$110,245	$0	$54,256	$44,727	$26,549	$0	$0	$0	$0	As Plant Factor 1
Total Working Capital	$518,252	$282,475	$110,245	$0	$54,256	$44,727	$26,549	$0	$0	$0	$0	
Less: Contributed Capital												
Various Cost Recovery Payments [1]	$607,515	$331,129	$129,233	$0	$63,602	$52,430	$31,122	$0	$0	$0	$0	As Plant Factor 1
WSSS Cost Recovery Payments	4,708,144	2,566,193	1,001,537	0	492,901	406,326	241,187	0	0	0	0	As Plant Factor 1
ESSS Cost Recovery Payments	1,047,613	571,005	222,853	0	109,676	90,412	53,667	0	0	0	0	As Plant Factor 1
Total Less: Contributed Capital	$6,363,272	$3,468,327	$1,353,623	$0	$666,179	$549,169	$325,975	$0	$0	$0	$0	
TOTAL RATE BASE	**$53,364,734**	**$35,668,227**	**$8,987,294**	**$0**	**$4,133,326**	**$3,141,997**	**$1,433,890**	**$0**	**$0**	**$0**	**$0**	(Plant Factor 2)

City of Sioux Falls Regional Wastewater System
Step 3
Transition from Cash Basis to Utility Basis

Regional Cash Basis			**Regional Utility Basis**			
Expenses Included:			**Expenses Included:**			
			Total Revenue Requirement Before Return			
Total O&M Expenses	$5,503,904		Total O&M Expenses	$5,503,904		
Net Debt Service	4,279,788		Annual Deprec. Exp.	3,554,665		
CIP Through Rates	3,554,665		Return on Rate Basis	4,279,788		
Less: Miscellaneous Revenues	(239,623)		Less: Miscellaneous Revenues	(239,623)		
Total Net Revenue Requirements	**$13,098,734**	=	**Total Net Revenue Requirements**	**$13,098,734**		
			** Calculation of Rate of Return			
			Return on Rate Basis	$4,279,788		
			Rate Base	$53,364,734	=	8.0% Proposed Rate of Return

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 16
Allocation of Rate Base

Classification Component	Total Regional Plant in Service 12/2010	City of Sioux Falls	Brandon	Harrisburg	Prairie Meadows	Renner	Baltic	Canton	Corson	Crooks	Garretson	Hartford	Lennox	Tea	Valley Springs	Worthing	*Allocation Factors*
Volume Related	$35,668,227	$33,129,248	$758,772	$1,237,105	$263,322	$279,781	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(VOL)**
Capacity Related																	
Total Plant Capacity	$8,987,294	$8,587,823	$98,345	$160,342	$68,259	$72,525	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(TCAP - 1)**
Total Contract Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**(TCAP - 2)**
Total Capacity Related	$8,987,294	$8,587,823	$98,345	$160,342	$68,259	$72,525	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Strength Related																	
BOD	$4,133,326	$3,964,264	$90,857	$13,217	$31,509	$33,479	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(BOD)**
SS	3,141,997	3,000,938	68,732	23,132	23,852	25,343	0	0	0	0	0	0	0	0	0	0	**(TSS)**
TKN	1,433,890	1,367,687	31,325	12,457	10,871	11,550	0	0	0	0	0	0	0	0	0	0	**(TKN)**
Total Strength	$8,709,213	$8,332,890	$190,913	$48,805	$66,232	$70,372	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Customer Related																	
Actual Customer	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(AC)**
Weighted Customer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**(WCA)**
Total Customer Related	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Revenue Related	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(RR)**
Direct Assignment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(DA)**
Total Rate Base	**$53,364,734**	**$50,049,960**	**$1,048,030**	**$1,446,253**	**$397,813**	**$422,679**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 17
Functionalization and Classification of Regional Expenses

Account Name	Regional Share 2011	Volume (VOL)	Capacity (TCAP - 1)	Capacity (TCAP - 2)	Strength Related: Bio-oxygen Demand (BOD)	Strength Related: Suspended Solids (SS)	Strength Related: TK Nitrogen (TKN)	Weighted for: Actual Customer (AC)	Weighted for: Customer Acct/Svcs (WCA)	Revenue (RR)	Direct (DA)	*Basis of Classification*
EXPENSES												
Collection System												
Full Time	$150,231	$150,231	$0	$0	$0	$0	$0	$0	$0	$0	$0	As Collection System
Overtime	4,500	4,500	0	0	0	0	0	0	0	0	0	As Collection System
Standby	1,991	1,991	0	0	0	0	0	0	0	0	0	As Collection System
Part-Time	2,874	2,874	0	0	0	0	0	0	0	0	0	As Collection System
Sick Leave & Benefits	1,479	1,479	0	0	0	0	0	0	0	0	0	As Collection System
Deferred Compensation	1,688	1,688	0	0	0	0	0	0	0	0	0	As Collection System
Social Security & Medicare	11,561	11,561	0	0	0	0	0	0	0	0	0	As Collection System
Retirement Compensation	20,844	20,844	0	0	0	0	0	0	0	0	0	As Collection System
Other Post Employment Benefits	7,739	7,739	0	0	0	0	0	0	0	0	0	As Collection System
Worker's Compensation	1,063	1,063	0	0	0	0	0	0	0	0	0	As Collection System
Group Insurance	24,560	24,560	0	0	0	0	0	0	0	0	0	As Collection System
Life Insurance	493	493	0	0	0	0	0	0	0	0	0	As Collection System
Property, Liability, etc.	3,669	3,669	0	0	0	0	0	0	0	0	0	As Collection System
Legal	1,123	1,123	0	0	0	0	0	0	0	0	0	As Collection System
Consultants	7,484	7,484	0	0	0	0	0	0	0	0	0	As Collection System
Independent Contractor	3,794	3,794	0	0	0	0	0	0	0	0	0	As Collection System
From Other Departments	6,289	6,289	0	0	0	0	0	0	0	0	0	As Collection System
Other	56	56	0	0	0	0	0	0	0	0	0	As Collection System
Property	97	97	0	0	0	0	0	0	0	0	0	As Collection System
Fleet Equipment	23,164	23,164	0	0	0	0	0	0	0	0	0	As Collection System
Licensed Vehicles	1,497	1,497	0	0	0	0	0	0	0	0	0	As Collection System
Unlicensed Vehicles	449	449	0	0	0	0	0	0	0	0	0	As Collection System
Other Equipment	6,993	6,993	0	0	0	0	0	0	0	0	0	As Collection System
Buildings and Structures	1,967	1,967	0	0	0	0	0	0	0	0	0	As Collection System
Repairs & Maintanence/Utilities	5,055	5,055	0	0	0	0	0	0	0	0	0	As Collection System
Grounds	34	34	0	0	0	0	0	0	0	0	0	As Collection System
Garage Parts LIC Vehicle	7,469	7,469	0	0	0	0	0	0	0	0	0	As Collection System
Office	1,633	1,633	0	0	0	0	0	0	0	0	0	As Collection System
Fuel	6,965	6,965	0	0	0	0	0	0	0	0	0	As Collection System
Clothing & Protective Equipment	1,498	1,498	0	0	0	0	0	0	0	0	0	As Collection System
Small Tools & Minor Equipment	676	676	0	0	0	0	0	0	0	0	0	As Collection System
Chemical/Lab	11,714	11,714	0	0	0	0	0	0	0	0	0	As Collection System
Janitorial/Shop	61	61	0	0	0	0	0	0	0	0	0	As Collection System
Non Capital Inventory	1,557	1,557	0	0	0	0	0	0	0	0	0	As Collection System
Computer Software & Maintenance	7,027	7,027	0	0	0	0	0	0	0	0	0	As Collection System
Computer Hardware	2,066	2,066	0	0	0	0	0	0	0	0	0	As Collection System
Memberships & Dues	8	8	0	0	0	0	0	0	0	0	0	As Collection System
Mileage/Motor Pool	14	14	0	0	0	0	0	0	0	0	0	As Collection System
Training, Travel in-state	529	529	0	0	0	0	0	0	0	0	0	As Collection System
Training, Travel out-state	1,175	1,175	0	0	0	0	0	0	0	0	0	As Collection System
Telephone	249	249	0	0	0	0	0	0	0	0	0	As Collection System
Natural Gas	4,428	4,428	0	0	0	0	0	0	0	0	0	100% VOL
Electricity	44,478	44,478	0	0	0	0	0	0	0	0	0	100% VOL
Water	3,979	3,979	0	0	0	0	0	0	0	0	0	As Collection System
Wireless Service	352	352	0	0	0	0	0	0	0	0	0	As Collection System
Mobile Phone Service	679	679	0	0	0	0	0	0	0	0	0	As Collection System
Right-Of-Way	7,484	7,484	0	0	0	0	0	0	0	0	0	As Collection System
Total Collection System	$394,733	$394,733	$0	$0	$0	$0	$0	$0	$0	$0	$0	

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 17
Functionalization and Classification of Regional Expenses

Account Name	Regional Share 2011	Volume (VOL)	Capacity (TCAP - 1)	Capacity (TCAP - 2)	Strength Related: Bio-oxygen Demand (BOD)	Strength Related: Suspended Solids (SS)	Strength Related: TK Nitrogen (TKN)	Weighted for: Actual Customer (AC)	Weighted for: Customer Acct/Svcs (WCA)	Revenue (RR)	Direct (DA)	*Basis of Classification*
Engineering												
Full Time	$67,482	$67,482	$0	$0	$0	$0	$0	$0	$0	$0	$0	As Collection & Pumping Plant
Overtime	302	302	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Standby	0	0	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Part-Time	0	0	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Sick Leave & Benefits	1,222	1,222	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Deferred Compensation	1,370	1,370	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Social Security & Medicare	5,117	5,117	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Retirement Compensation	9,088	9,088	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Other Post Employment Benefits	3,374	3,374	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Group Insurance	9,504	9,504	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Life Insurance	178	178	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Consultants	35,660	35,660	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Independent Contractor	1,595	1,595	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Utilities	7,752	7,752	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Office	310	310	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Computer Software & Maintenance	2,200	2,200	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Memberships & Dues	143	143	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Subscriptions & Publication	155	155	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Mileage/Motor Pool	39	39	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Training, Travel in-state	140	140	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Training, Travel out-state	868	868	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Total Engineering	$146,500	$146,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Environment												
Full Time	$58,348	$58,348	$0	$0	$0	$0	$0	$0	$0	$0	$0	As Collection & Pumping Plant
Part-Time	16,024	16,024	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Sick Leave & Benefits	361	361	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Deferred Compensation	2,334	2,334	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Social Security & Medicare	5,749	5,749	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Retirement Compensation	7,732	7,732	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Other Post Employment Benefits	2,871	2,871	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Group Insurance	5,945	5,945	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Life Insurance	149	149	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Independent Contractor	65	65	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
From Other Departments	1,309	1,309	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Other	655	655	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Hazardous Waste	1,309	1,309	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Engineering & Testing	3,273	3,273	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Publishing & Advertising	1,898	1,898	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Property	982	982	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Technology Equipment	1,570	1,570	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Other Equipment	491	491	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Office	4,104	4,104	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Clothing & Protective Equipment	578	578	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Small Tools & Minor Equipment	216	216	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Chemical/Lab	556	556	0	0	0	0	0	0	0	0	0	100% VOL
Other (Supplies & Materials)	7,200	7,200	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Computer Software & Maintenance	1,145	1,145	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Memberships & Dues	399	399	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Subscription & Publications	190	190	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Mileage/Motor Pool	229	229	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Training, Travel in-state	916	916	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Training, Travel out-state	4,451	4,451	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Mobile Phone Service	592	592	0	0	0	0	0	0	0	0	0	As Collection & Pumping Plant
Total Environmental	$131,643	$131,643	$0	$0	$0	$0	$0	$0	$0	$0	$0	

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 17
Functionalization and Classification of Regional Expenses

Account Name	Regional Share 2011	Volume (VOL)	Capacity (TCAP - 1)	(TCAP - 2)	Strength Related: Bio-oxygen Demand (BOD)	Suspended Solids (SS)	TK Nitrogen (TKN)	Weighted for: Actual Customer (AC)	Customer Acct/Svcs (WCA)	Revenue (RR)	Direct (DA)	*Basis of Classification*
Treatment												
Full Time	$1,486,220	$300,306	$831,822	$0	$226,887	$109,305	$17,900	$0	$0	$0	$0	As Treatment Plant
Overtime	52,712	10,651	29,502	0	8,047	3,877	635	0	0	0	0	As Treatment Plant
Standby	4,940	998	2,765	0	754	363	59	0	0	0	0	As Treatment Plant
Part-Time	9,450	1,909	5,289	0	1,443	695	114	0	0	0	0	As Treatment Plant
Sick Leave & Benefits	60,864	12,298	34,065	0	9,292	4,476	733	0	0	0	0	As Treatment Plant
Deferred Compensation	10,414	2,104	5,829	0	1,590	766	125	0	0	0	0	As Treatment Plant
Social Security & Medicare	117,509	23,744	65,769	0	17,939	8,642	1,415	0	0	0	0	As Treatment Plant
Retirement Compensation	211,505	42,737	118,377	0	32,288	15,555	2,547	0	0	0	0	As Treatment Plant
Other Post Employment Benefits	78,531	15,868	43,953	0	11,989	5,776	946	0	0	0	0	As Treatment Plant
Worker's Compensation	5,809	1,174	3,251	0	887	427	70	0	0	0	0	As Treatment Plant
Group Insurance	229,851	46,444	128,645	0	35,089	16,904	2,768	0	0	0	0	As Treatment Plant
Life Insurance	5,298	1,071	2,965	0	809	390	64	0	0	0	0	As Treatment Plant
Property, Liability, etc.	73,527	14,857	41,152	0	11,225	5,408	886	0	0	0	0	As Treatment Plant
Consultants	25,000	5,052	13,992	0	3,817	1,839	301	0	0	0	0	As Treatment Plant
Independent Contractor	215,971	43,639	120,877	0	32,970	15,884	2,601	0	0	0	0	As Treatment Plant
From Other Departments - Utility Billing	0	0	0	0	0	0	0	0	0	0	0	As Treatment Plant
Other	410	83	229	0	63	30	5	0	0	0	0	As Treatment Plant
Property	6,975	1,409	3,904	0	1,065	513	84	0	0	0	0	As Treatment Plant
Technology Equipment	29,198	5,900	16,342	0	4,457	2,147	352	0	0	0	0	As Treatment Plant
Fleet Equipment	199,250	40,261	111,518	0	30,418	14,654	2,400	0	0	0	0	As Treatment Plant
Licensed Vehicles	3,000	606	1,679	0	458	221	36	0	0	0	0	As Treatment Plant
Unlicensed Vehicles	10,800	2,182	6,045	0	1,649	794	130	0	0	0	0	As Treatment Plant
Other Equipment	26,005	5,255	14,555	0	3,970	1,913	313	0	0	0	0	As Treatment Plant
Buildings and Structures	38,000	7,678	21,268	0	5,801	2,795	458	0	0	0	0	As Treatment Plant
Street, Curb, & Sidewalk	3,500	707	1,959	0	534	257	42	0	0	0	0	As Treatment Plant
Repairs & Maintanence/Utilities	344,520	69,614	192,824	0	52,595	25,338	4,149	0	0	0	0	As Treatment Plant
Grounds	8,550	1,728	4,785	0	1,305	629	103	0	0	0	0	As Treatment Plant
Garage Parts LIC Vehicle	85,000	17,175	47,574	0	12,976	6,251	1,024	0	0	0	0	As Treatment Plant
Office	18,925	3,824	10,592	0	2,889	1,392	228	0	0	0	0	As Treatment Plant
Fuel	123,449	24,944	69,093	0	18,846	9,079	1,487	0	0	0	0	As Treatment Plant
Clothing & Protective Equipment	18,200	3,677	10,186	0	2,778	1,339	219	0	0	0	0	As Treatment Plant
Small Tools & Minor Equipment	7,200	1,455	4,030	0	1,099	530	87	0	0	0	0	As Treatment Plant
Chemical/Lab	268,367	268,367	0	0	0	0	0	0	0	0	0	100% VOL
Janitorial/Shop	49,260	9,953	27,570	0	7,520	3,623	593	0	0	0	0	As Treatment Plant
Other (Supplies & Materials)	900	182	504	0	137	66	11	0	0	0	0	As Treatment Plant
Non Capital Inventory	21,685	4,382	12,137	0	3,310	1,595	261	0	0	0	0	As Treatment Plant
Computer Software & Maintenance	40,295	8,142	22,553	0	6,151	2,964	485	0	0	0	0	As Treatment Plant
Computer Hardware	16,900	3,415	9,459	0	2,580	1,243	204	0	0	0	0	As Treatment Plant
Memberships & Dues	987	199	552	0	151	73	12	0	0	0	0	As Treatment Plant
Subscriptions & Publications	3,540	715	1,981	0	540	260	43	0	0	0	0	As Treatment Plant
Mileage/Motor Pool	290	59	162	0	44	21	3	0	0	0	0	As Treatment Plant
Training, Travel in-state	2,822	570	1,579	0	431	208	34	0	0	0	0	As Treatment Plant
Training, Travel out-state	2,564	518	1,435	0	391	189	31	0	0	0	0	As Treatment Plant
Training In-house	4,170	843	2,334	0	637	307	50	0	0	0	0	As Treatment Plant
Telephone	9,070	1,833	5,076	0	1,385	667	109	0	0	0	0	As Treatment Plant
Natural Gas	76,472	76,472	0	0	0	0	0	0	0	0	0	100% VOL
Electricity	587,166	587,166	0	0	0	0	0	0	0	0	0	100% VOL
Water	23,304	4,709	13,043	0	3,558	1,714	281	0	0	0	0	As Treatment Plant
Storm Sewer	30,977	6,259	17,338	0	4,729	2,278	373	0	0	0	0	As Treatment Plant
Sanitation	71,046	14,356	39,764	0	10,846	5,225	856	0	0	0	0	As Treatment Plant
Wireless Service	0	0	0	0	0	0	0	0	0	0	0	As Treatment Plant
Mobile Phone Service	7,730	1,562	4,326	0	1,180	569	93	0	0	0	0	As Treatment Plant
Miscellaneous	750	152	420	0	114	55	9	0	0	0	0	As Treatment Plant
State Fees	102,150	20,640	57,172	0	15,594	7,513	1,230	0	0	0	0	As Treatment Plant
Total Treatment	$4,831,028	$1,719,842	$2,182,243	$0	$595,227	$286,755	$46,960	$0	$0	$0	$0	

City of Sioux Falls Regional Wastewater System
Step 3 - Exhibit 17
Functionalization and Classification of Regional Expenses

Account Name	Regional Share 2011	Volume (VOL)	Capacity (TCAP - 1)	Capacity (TCAP - 2)	Strength Related: Bio-oxygen Demand (BOD)	Strength Related: Suspended Solids (SS)	Strength Related: TK Nitrogen (TKN)	Weighted for: Actual Customer (AC)	Weighted for: Customer Acct/Svcs (WCA)	Revenue (RR)	Direct (DA)	*Basis of Classification*
Wastewater/Street												
Full Time	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	As Plant Factor 2
Part-Time	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Sick Leave & Benefits	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Social Security & Medicare	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Retirement Compensation	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Other Post Employment Benefits	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Group Insurance	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Life Insurance	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Fleet Equipment	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Utilities	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Garage Parts LIC Vehicle	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Fuel	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Non Capital Inventory	0	0	0	0	0	0	0	0	0	0	0	As Plant Factor 2
Total Wastewater/Street	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
TOTAL WASTEWATER O&M EXPENSES	**$5,503,904**	**$2,392,718**	**$2,182,243**	**$0**	**$595,227**	**$286,755**	**$46,960**	**$0**	**$0**	**$0**	**$0**	
Annual Depreciation Expense												
Various Plant	$985	$537	$209	$0	$103	$85	$50	$0	$0	$0	$0	As Various Plant
Collection System	1,583,727	1,583,727	0	0	0	0	0	0	0	0	0	As Collection System
Pumping Plant	142,722	142,722	0	0	0	0	0	0	0	0	0	As Pumping Plant
Treatment Plant	1,251,424	252,863	700,409	0	191,043	92,036	15,072	0	0	0	0	As Treatment Plant
Tertiary Plant	388,711	71,293	90,011	0	57,599	73,044	96,764	0	0	0	0	As Tertiary Plant
Biosolids Plant	185,559	0	0	0	83,502	83,502	18,556	0	0	0	0	As Biosolids Plant
General Plant	1,538	838	327	0	161	133	79	0	0	0	0	As Administrative & General
Total Depreciation Expense	$3,554,665	$2,051,980	$790,957	$0	$332,407	$248,800	$130,522	$0	$0	$0	$0	
TOTAL REVENUE REQUIREMENT	**$9,058,569**	**$4,444,698**	**$2,973,200**	**$0**	**$927,634**	**$535,554**	**$177,482**	**$0**	**$0**	**$0**	**$0**	
Miscellaneous Revenues												
Miscellaneous	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	As Total Revenue Requirement
Late Charges	0	0	0	0	0	0	0	0	0	0	0	As Total Revenue Requirement
Rental Income	0	0	0	0	0	0	0	0	0	0	0	As Total Revenue Requirement
Special Assessments	0	0	0	0	0	0	0	0	0	0	0	As Total Revenue Requirement
Ground Water Recovery	0	0	0	0	0	0	0	0	0	0	0	As Total Revenue Requirement
Contractual Sales	0	0	0	0	0	0	0	0	0	0	0	As Total Revenue Requirement
Other Sewer Charges/Maintanence	0	0	0	0	0	0	0	0	0	0	0	As Total Revenue Requirement
Sale of Scrap	0	0	0	0	0	0	0	0	0	0	0	As Total Revenue Requirement
Liquid Waste	118,150	23,873	66,127	0	18,037	8,689	1,423	0	0	0	0	As Treatment Plant
Pretreatment Fees	22,741	4,595	12,728	0	3,472	1,672	274	0	0	0	0	As Treatment Plant
Interest Income	98,732	48,444	32,406	0	10,111	5,837	1,934	0	0	0	0	As Total Revenue Requirement
Total Miscellaneous Revenues	$239,623	$76,913	$111,261	$0	$31,619	$16,199	$3,631	$0	$0	$0	$0	
NET REVENUE REQUIREMENT BEFORE RETURN	**$8,818,946**	**$4,367,786**	**$2,861,939**	**$0**	**$896,015**	**$519,355**	**$173,851**	**$0**	**$0**	**$0**	**$0**	

City of Sioux Falls Regional Wastewater System
Step 4 - Exhibit 18
Allocation of Total Revenue Requirements

Classification Components	Total Net Regional 2011 Expenses	City of Sioux Falls	Brandon	Harrisburg	Prairie Meadows	Renner	Baltic	Canton	Corson	Crooks	Garretson	Hartford	Lennox	Tea	Valley Springs	Worthing	*Basis of Allocation*
Volume Related	$4,367,786	$4,056,873	$92,916	$151,491	$32,245	$34,261	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(VOL)**
Capacity Related																	
Total Plant Capacity	$2,861,939	$2,734,730	$31,317	$51,060	$21,736	$23,095	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(TCAP - 1)**
Total Contract Capacity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**(TCAP - 2)**
Total Capacity Related	$2,861,939	$2,734,730	$31,317	$51,060	$21,736	$23,095	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Strength Related																	
Bio-Chemical Oxygen Demand	$896,015	$859,366	$19,696	$2,865	$6,831	$7,257	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(BOD)**
Total Suspended Solids	519,355	496,039	11,361	3,824	3,943	4,189	0	0	0	0	0	0	0	0	0	0	**(TSS)**
Nitrogen	173,851	165,824	3,798	1,510	1,318	1,400	0	0	0	0	0	0	0	0	0	0	**(TKN)**
Total Strength Related	$1,589,221	$1,521,230	$34,855	$8,199	$12,091	$12,847	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Customer Related																	
Actual Customer	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(AC)**
Weighted Customer	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**(WCA)**
Total Customer Related	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	
Revenue Related	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(RR)**
Direct Assignment	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	**(DA)**
		$0															
Total Revenue Requirement Before Return	**$8,818,946**	**$8,312,832**	**$159,088**	**$210,750**	**$66,073**	**$70,203**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	

City of Sioux Falls Regional Wastewater System
Step 4 - Exhibit 19
Summary of the Regional Cost of Service Analysis

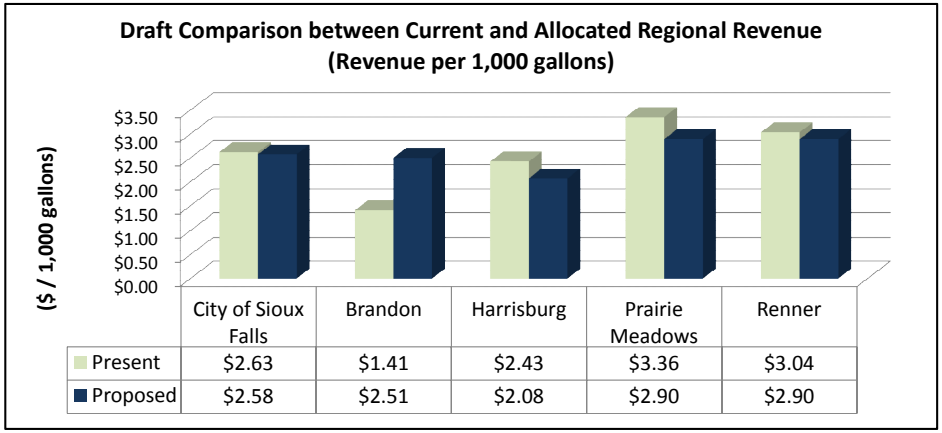
Line		Total	City of Sioux Falls	Brandon	Harrisburg[1]	Prairie Meadows	Renner	Baltic	Canton	Corson	Crooks	Garretson	Hartford	Lennox	Tea	Valley Springs	Worthing	*Notes:*
1	**Revenues at Present Rates**	$13,327,674	$12,453,733	$153,072	$472,590	$126,588	$121,691	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	Step 2 - Exhibit 6
2	**Total Revenue Requirement Before Return**	$8,818,946	$8,312,832	$159,088	$210,750	$66,073	$70,203	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	Step 4 - Exhibit 18
3	**Balance/(Deficiency) of Rates**	$4,508,728	$4,140,900	($6,016)	$261,840	$60,515	$51,488	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	= L1 - L2
4	**Rate Base**	$53,364,734	$50,049,960	$1,048,030	$1,446,253	$397,813	$422,679	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	Step 3 - Exhibit 16
5	**Present Return on Rate Base**	8.45%	8.27%	-0.57%	18.10%	15.21%	12.18%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	= L3 / L4
6	**Proposed Return Component**	$4,279,788	$3,920,798	$113,502	$156,629	$43,083	$45,776	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	Step 3 - Exhibit 15
7	**Proposed Rate of Return [1]**	8.02%	7.83%	10.83%	10.83%	10.83%	10.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	= L6 / L4
8	**Proposed Rate Revenues**	$13,098,734	$12,233,630	$272,590	$367,379	$109,156	$115,979	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	= L2 + L6
9	**Required $ Change in Rates**	($228,940)	($220,103)	$119,517	($105,211)	($17,432)	($5,712)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	= L8 - L1
10	**Required % Change in Rates**	-1.7%	-1.8%	78.1%	-22.3%	-13.8%	-4.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	= L9 / L1
	($ / 1,000 gallons)	$2.57	$2.58	$2.51	$2.08	$2.90	$2.90	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	

NOTES:

[1] Rate of return for wholesale customers equals the greater of -
[A] Cost of Debt plus 3% (e.g., 5% + 3% = 8%)
[B] City's Rate of Return plus 3% (e.g., 7.83% + 3.00% = 11.02%)

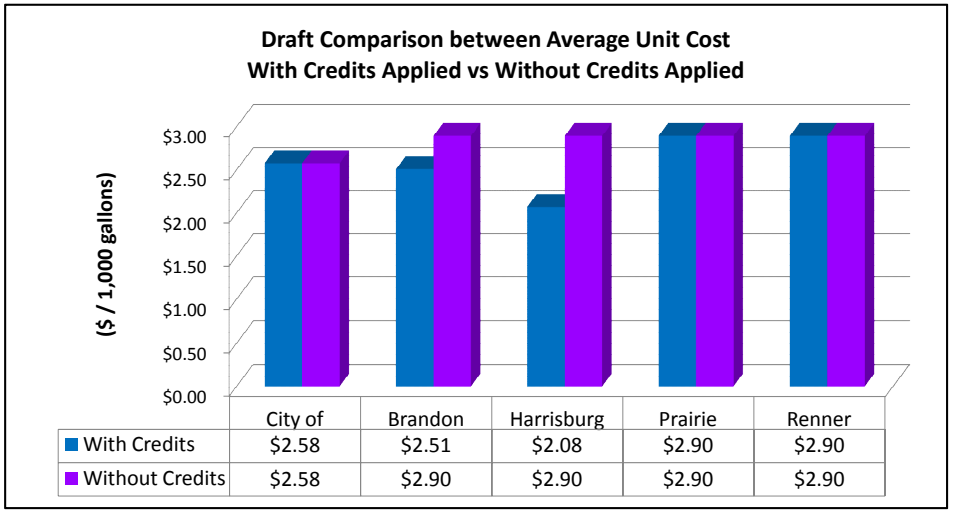
City of Sioux Falls Regional Wastewater System
Step 4 - Exhibit 20
Average Unit Costs - Summary of the Cost of Service

	Total Net Regional Expenses	City of Sioux Falls	Brandon	Harrisburg	Prairie Meadows	Renner	Baltic	Canton	Corson	Crooks	Garretson	Hartford	Lennox	Tea	Valley Springs	Worthing
Volume Costs - $ / 1,000 gallons	$0.86	$0.86	$0.86	$0.86	$0.86	$0.86	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Capacity Costs - $ / 1,000 gallons	$0.56	$0.58	$0.29	$0.29	$0.58	$0.58	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Strength Costs - $ / 1,000 gallons	$0.31	$0.32	$0.32	$0.05	$0.32	$0.32	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Revenue/Direct/Other - $ / 1,000 gallons	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Return - $ / 1,000 gallons	$0.84	$0.83	$1.05	$0.88	$1.14	$1.14	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total - $ / 1,000 gals	$2.57	$2.58	$2.51	$2.08	$2.90	$2.90	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Customer Related Costs - $ / CustomerMonth	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Cost $ / Customer / Month	$218,312.23	##########	$22,715.80	$30,614.90	$9,096.34	$9,664.94										
Total Average Cost / 1,000 gallons	$2.57	$2.58	$2.51	$2.08	$2.90	$2.90	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Current Average Revenue / 1,000 gallons	$2.61	$2.63	$1.41	$2.67	$3.36	$3.04	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Basic Data:																
Billed Flow - (1,000 gals)	5,103,267	4,740,000	108,562	177,000	37,675	40,030	0	0	0	0	0	0	0	0	0	0
Number of Customers	5	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0



City of Sioux Falls Regional Wastewater System
Step 4 - Exhibit 21
Average Unit Cost - Including Credits

	Total	City of Sioux Falls	Brandon	Harrisburg	Prairie Meadows	Renner	Baltic	Canton	Corson	Crooks	Garretson	Hartford	Lennox	Tea		Worthing
Total Average Unit Cost - Before Credits	$2.57	$2.58	$2.90	$2.90	$2.90	$2.90	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Applied Credits																
Capacity Equalization - $ 1,000 gals	$0.00	$0.00	($0.39)	($0.39)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Treatment/Strength Related - $ 1,000 gals	0.00	0.00	0.00	(0.44)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Applied Credits - $ 1,000 gals	$0.00	$0.00	($0.39)	($0.82)	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Total Average Unit Cost - $ / 1,000 gals	**$2.57**	**$2.58**	**$2.51**	**$2.08**	**$2.90**	**$2.90**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**	**$0.00**



City of Sioux Falls Regional Wastewater System
Step 5 - Exhibit 22
Average Unit Costs for Loading

	Bio-Chemical Oxygen Demand	Total Suspended Solids	TKN	Total
Total System Cost	$896,015	$519,355	$173,851	$1,589,221
Total System Pounds	9,232,716	9,022,973	1,699,250	
Average Unit Cost $/lb	$0.10	$0.06	$0.10	