

Review of the Environmental Finance Center's Review of the City of Sioux Falls' Comprehensive Wastewater Regionalization Study

Introduction

The intent of the study was to review and discuss the concept of regionalization and to provide the City of Sioux Falls (City) with an understanding of the key policy issues and a framework of regionalization approaches that the City could consider. To that end, HDR developed a two-volume report in 2012 which discussed these regionalization issues. This report primarily focused on the issue of regional rates and system development charges (SDCs).

It is important to note and understand that as the City worked on the regionalization study, there was never an objective on the part of the City to force regionalization. While the City recognized the potential mutual benefits of regionalization, it also understood the complexities and hurdles often encountered in regionalization. With that background in mind, the study was developed to provide a reasonable and equitable approach to regionalization. The parties may not agree on certain approaches or methodologies, but the City was not attempting to develop a study which provided or produced the lowest rate or SDC to encourage regionalization. At the same time, it is counter-intuitive and not in the City's best interests to establish regional rates or policies which are high, unacceptable and discourage regionalization. Rather, the study attempted to balance the complexities encountered in regionalization with the desire for equity between all of the regional participants.

Environmental Finance Center (EFC) Review

The intent of this response is not to rebut EFC's observations, but rather to help clarify and provide greater understanding to all interested parties the basis for the key assumptions used by the City. In the end, as EFC's report noted:

"The System Development Charge (SDC) analysis carried out as a part of the Wastewater Regionalization Study was completed in a professional and high quality manner and followed accepted industry practices."¹

As EFC correctly observes, all rate and fee studies can be at times, as much art as a science, and given that, require certain assumptions and professional judgment. EFC, within their review, has provided comments on various key assumptions used within the Regional rate and SDC analysis. Provided below is a more detailed discussion of EFC's specific comments.

EFC Review and Major Comments

The EFC review highlighted a number of key assumptions or issues for additional discussion and review. In highlighting these key assumptions and issues, EFC is not stating that a methodology or assumption is incorrect, but rather, given the range of possible methodologies or assumptions, the City could consider an alternative methodology and assumption which may produce a lower SDC. While EFC's comments all seem to be pointed towards methodologies and assumptions to lower the SDC, in fairness, EFC also did note that the City selected a methodology (e.g. postage stamp

rates) which they opined produces a lower rate for the region than the simple use of an inside/outside multiplier approach.

In summary form, the eight major issues highlighted in the EFC report are as follows:

1. Use of the Postage Stamp Approach for Rate Setting
2. Assets Included Within the Definition of Regional Assets
3. Use of the “Capacity Buy-In” Methodology for the Reimbursement Portion of the SDC
4. Valuation of the Assets and Past Grant Funding
5. Methodology for the Valuation of the Assets (Replacement Cost New)
6. Identification of CIP Components Linked to Added Capacity
7. Inclusion of an Improvement and Reimbursement Component Within the SDC
8. Use of the Reimbursement Portion of the SDC to Allocate Capacity to Existing Harrisburg Customers

Provided below is a discussion of each of these issues:

1. Use of the Postage Stamp Approach for Rate Setting

The EFC report correctly notes that a “postage stamp” approach was utilized for both rate setting and system development charges. EFC states that a common alternative approach is to establish rates and fees by sub-regions based on technical cost of service or geographic/political boundaries. EFC goes on to note that many utilities in South Dakota employ an inside/outside multiplier approach, which in this case would have likely resulted in higher rates and fees than those shown in the report. The City agrees with that assessment and would point out that a postage stamp approach, while being seemingly simplistic, takes much of the geographic and political arguments out of the regionalization discussion (a major benefit). Most would view regionalization as an approach to share costs in such a manner that overall risks are minimized between the parties. Finally, in the opinion of the City, inside/outside city rate differentials are not a typical “regionalization” solution.

2. Assets Included Within the Definition of Regional Assets

EFC notes that some local wastewater collection system assets were included within the definition of “regional assets” and by doing so, City customers receive a benefit they otherwise would not have had. The City does not disagree with that basic observation, but the City would point out that the regional customers also gain a benefit from the sharing of these existing collection facilities (as opposed to building an entirely new collection system to handle regional wastewater). EFC’s observation, while technically correct, seems to ignore the fact that the regional customers gain a financial benefit from the use of these existing City facilities. However, in making that statement, there is a presumptive overall benefit in the use of these “regional assets” such that the regional customer’s total costs are less than they would have been, absent regionalization. In this case, regionalization takes advantage of the City’s existing treatment and collection assets with the intent of producing an overall total lower cost for the regional customer. If that is not the case, then regionalization does not make economic sense and should not occur.

The above discussion discusses the mutual benefit of sharing regional assets, but does not respond to EFC’s core issue of whether the appropriate assets have been included within the “regional assets”. One of the more challenging areas of any regional rate setting process is identifying those

assets which benefit the regional customers. Anyone who has ever established regional or wholesale rates understands that, technically, it is not a simple exercise. It is not as simple as drawing a straight line from a regional customer to the City's treatment facilities. Given the complexity of that decision, along with the City's intimate knowledge of their own system, as a part of the regionalization study, the City identified those collection system assets which they judged to be of a regional benefit (i.e. to be included in the definition of "regional assets"). Section 5 of the regional rate study report provided a detailed discussion and map of the regional system. The report notes the following:

*All City of Sioux Falls sewer systems identified as regional sewer systems 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. ...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."*²

EFC correctly notes there is sensitivity to the rates and SDCs when interceptor assets are shifted either in or out of the regional asset category. However, from the City's perspective, it appears that the City has conservatively defined the regional assets related to the interceptor/collection system.

3. Use of the "Capacity Buy-In" Methodology for the Reimbursement Portion of the SDC

The City's SDC was calculated with a reimbursement (buy-in) component and an improvement component. The reimbursement portion was calculated using a buy-in approach. EFC discusses another common alternative practice of using the "equity" approach where new customers pay a fee into the system to purchase equity and essentially become "owners". EFC further notes that once the equity payment is made, new customers are on the same footing as existing customers relative to carrying the cost of future improvements. EFC concludes that if an equity approach had been used, there would not have been as strong a rationale for also including a forward looking improvement SDC component and the overall SDC may have been lower.

Interestingly, in many ways, the terminology of SDC methodologies varies by industry manual. For example, the American Water Works Association (AWWA) M-1 manual discusses three methodologies; the buy-in method, the incremental method and the combined method. In contrast to this manual, the Water Environment Federation (WEF) rate setting manual (Manual of Practice No. 27) discusses essentially the same three methods; the system buy-in approach, the marginal or incremental approach and the combined approach. Both of these manuals describe the buy-in methodology as being based upon existing facilities and "new customers are required to "buy-in" to existing system facilities, generally at a rate which reflect the prior investment of existing customers per unit of total capacity (capacity buy-in)."³ The marginal or incremental method is based on the projection of capacity enhancing system improvements. Finally, the combined approach "considers both existing and planned future facilities."⁴ The WEF manual does discuss the "equity" buy-in approach and notes the difference between the capacity buy-in and equity buy-in is the denominator in which capacity buy-in is divided by total existing system capacity and the equity buy-in is divided by existing used capacity. It is often easier and more convenient to determine the total system capacity as compared to the total used capacity. Hence, the City's use of the buy-in methodology for the reimbursement component.

South Dakota law is not prescriptive in the methodology to be used and the fees may be designed to “recover past capital costs and pay for the capital costs of developing new capacity.”⁵ In the case of the City’s Regional SDC analysis, the SDC utilizes a combined method which is comprised of a reimbursement component and an improvement component. This methodology is appropriate where a utility has current system facilities which could serve future customers and a portion of the wastewater capital improvement program is also related to growth. The combined approach includes two separate elements:

- (1) System reimbursement component. Includes a portion for new customer to pay for an equitable share of existing facilities.
- (2) Incremental new capacity component (also referred to as growth-related improvement component). Includes future facilities that will be constructed to accommodate growth.”⁶

In this case, the City was of the opinion that the selected methodology best reflected the City’s specific situation in that it has some available capacity, but will need to expand capacity in certain portions of their system to accommodate future customer growth.

4. Valuation of the Assets and Past Grant Funding

The EFC report highlights the issue of past grant funding and the need to deduct grant funding from the SDC value. The EFC letter report simply states that the City should confirm that any past grants have been properly deducted from the SDCs. The City agrees that the asset data should be confirmed and adjusted if appropriate. The City reviewed the asset data in the rate study and the SDC analysis, and we could not identify any obvious errors or oversights related to this issue.

5. Methodology for the Valuation of the Assets (Replacement Cost New)

The EFC report correctly notes that there are several techniques for valuing unused capacity. The City’s study utilizes the “replacement cost new” (RCN) approach, which EFC observes as typically leading to the highest value of the different approaches available. EFC suggests a middle-ground approach to calculating the value of assets using the replacement cost new approach less depreciation expense (RCNLD).

The City’s methodology, as EFC observed, is a generally accepted methodology or technique for the valuation of assets. The RCN methodology values the assets at an incremental or replacement cost, while also taking into account the carrying costs of the existing customers. The question of who pays or shares in the carrying costs and depreciation of the unused (excess) capacity of the system highlights the difference between these two methodologies. The City would observe that a methodology or approach should not be selected simply because it produces a higher or lower SDC value.

6. Identification of CIP Components Linked to Added Capacity

The EFC study notes that a challenging aspect of the study is to determine the portion of a future project’s cost that serves existing customers and the amount that generates future capacity. Once that growth-related component is determined, the study divides the total growth portion of the project by the capacity it produces. This method produces a per unit cost of capacity.

EFC in reviewing the projects noted that several interceptor projects play a major role in the final valuation of the SDC. This is a result of their inclusion, but also their high overall cost and limited additional capacity. The City concludes from EFC's review that the overall methodology is appropriate, but EFC is questioning the assignment of certain interceptor costs within the regional SDC, simply from a cost impact perspective.

In part, this observation may link back to the definition of the regional system and the interceptors which provide regional benefit. The City's response to Question 2 was intended to address this issue. At the same time, in the development of the SDC study, the consultant worked closely with City staff to determine the proportions of future projects for inclusion within the SDC analysis.

In developing the regional SDCs, the City wanted to provide a cost-based regional system development charge. Once that cost is known, the City can make a decision to charge an amount equal to or less than that cost-based amount. If the City chooses to charge an amount less than the calculated (cost-based) SDC to encourage more regional connections, then in doing so, the City would be making a conscious policy decision to trade-off that portion of the regional system which should be paid by new connections to the regional ratepayers⁷.

7. Inclusion of an Improvement and Reimbursement Component Within the SDC

The EFC report notes the different methodologies that may be used; the reimbursement (buy-in), improvement (incremental) or combined. Each of these methodologies is generally accepted by the wastewater industry. The City study used a combined methodology and as discussed previously, this methodology considers the City's existing capacity and future capacity needs. South Dakota (along with many other states) statutes allow for the use of this methodology. While EFC notes there is excess capacity in certain system components, the methodology has limited the incremental components to only those providing additional capacity needed to accommodate future customer growth (Question 6).

8. Use of the Reimbursement Portion of the SDC to Allocate Capacity to Existing Harrisburg Customers

EFC notes that utilities may use different arrangements to accommodate regional customers. Regional SDCs (as developed within the Regional study) are one approach. EFC notes that an alternative approach is to have Harrisburg simply purchase a fixed amount of capacity in the system and only pay the reimbursement portion of the SDC, which would reduce Harrisburg's fees by approximately 54%.

The current Harrisburg agreement with the City discusses regionalization and the payment for "reserve capacity." Specifically, the agreement states the following:

If the comprehensive wastewater regionalization study results are approved as policy by the Sioux Falls City Council, both Sioux Falls and Harrisburg will meet and if acceptable to both parties, this agreement shall be amended prior to the exercise of any contract renewal period provided herein, to include the approved policy of the comprehensive regionalization study and establishing the terms to buy reserve capacity of the Sioux Falls wastewater system. Harrisburg will be required to buy reserve capacity for the entire community of Harrisburg and implement necessary policies to continue to purchase reserve capacity to match Harrisburg's growth. . . .

Based upon the Harrisburg wastewater agreement, it is clear that Harrisburg will buy “reserve capacity” in the event of regionalization (presumably in the form of the regional SDC), and will be contractually required to buy reserve capacity for the entire community of Harrisburg.

It is unclear why the City would agree to have Harrisburg only pay a reimbursement fee, yet have all other regional customers pay the combined fee. This arrangement, while beneficial to Harrisburg, does not seem to be in the spirit of the concept of “regionalization” nor in the best interests of the City or its customers. Finally, that would create a disconnect between the regional SDCs and the regional rates.

Ultimately, removal of the improvement portion of the SDC moves all future capacity expansion projects to the regional rates. That spreads the capacity-related costs across the existing regional customers and does not allocate those growth related costs to the regional customers creating the need for that capacity (i.e. the faster growing communities).

¹ EFC Report

² City of Sioux Falls, Draft Final Report, Volume 1, Wastewater Regionalization Study, p. 39.

³ WEF Manual of Practice No. 27, p. 187.

⁴ Ibid. p. 187.

⁵ South Dakota Statute 9-48-32.1

⁶ WEF Manual of Practice No. 27, p. 192.

⁷ Regional customers include City of Sioux Falls customers. This is not a trade-off between City and outside City customers, but between existing regional and future regional customers.