



**DISTRICT OF COLUMBIA
WATER AND SEWER
AUTHORITY**

**2011 MISCELLANEOUS
FEE EVALUATION**

Final Report

June 8, 2011



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Section 1: EXECUTIVE SUMMARY

1.1. Introduction

Raftelis Financial Consultants, Inc. (“RFC”) was engaged by the District of Columbia Water and Sewer Authority (“DC Water”) to perform a Cost of Service (“COS”) Study in 2009. As part of that study, RFC looked at DC Water’s schedule of miscellaneous fees and charges assessed for non-recurring services. Our direction was to ensure that:

- All utility services, outside the standard services covered through monthly billing, are recovered by a designated fee or charge; and,
- The fee or charge is reasonable by comparing to other fees and charges assessed by comparable utilities for similar services.

RFC performed a comparative analysis on DC Water’s miscellaneous fees and charges. We compared DC Water’s existing fees and charges to those of other similar utilities for the same types of service. If fees and charges were significantly outside the range of those charged by other similar utilities, we noted recommendations of how DC Water fees may be adjusted. Our analysis focused on two areas. “Comprehensiveness” is the extent to which DC Water is assessing fees for all the services it provides. “Adequacy” is the ability of the fees to recover the cost of providing that service.

As a result of this COS Study analysis, RFC identified several opportunities that merited further examination. Those opportunities, along with select others added by DC Water, provided the basis for this Miscellaneous Fee Study.

1.2. Miscellaneous Charge Analysis

In early 2011 RFC renewed work with DC Water on the miscellaneous fee issue. RFC was tasked with looking into eight specific DC Water Miscellaneous Fees and Charges to determine if they should be updated to synchronize with cost of service. The fees under evaluation included:

- Engineering Review and Permitting;
- Environmental Impact Study Form review;
- Large Meter Purchase and Installation;
- Turn-on/Turn-off cost of service;
- Industrial User Permitting and Sampling;
- Temporary Discharge fees;
- Waste Hauler fees; and,
- High Strength Surcharges.

Our objective in performing our analysis was:

- Make firm recommendations as to fee modifications;

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- Identify policy decisions that should be considered before updating fees; or
- Determine a timeline for further analysis required to update these fees and charges.

1.3. Study Results

The conclusions of this analysis may lead DC Water to make adjustments to the existing structure of miscellaneous fees and charges. RFC will present these conclusions to the Retail Rates Committee of the Board. The Retail Rates Committee will make specific recommendations regarding fees and charges to the Board for adoption into the FY 2012 revenue structure. RFC's conclusions generally fall into two areas:

1. Adoption of a new or updated fee; and,
2. Deferral of consideration until DC Water can address outstanding issues or until a planned 2012 COS Study can provide a firm fee basis for implementation.

Exhibit 1 below categorizes how our conclusions may fall with respect to each fee under consideration:

Exhibit 1: Study Conclusions

| DESCRIPTION | New | Updated | Deferred | 2012 COS |
|---|-----|---------|----------|----------|
| Engineering Review and Permitting | X | X | | |
| Environmental Impact Study Fees | | | X | |
| Large Meter Installation | | X | | |
| Turn-on/Turn-off | | X | X | |
| Industrial User Permitting and Sampling | X | | | |
| Temporary Discharge Fees | | | X | |
| Waste Hauler Fees | | X | | X |
| High Strength Surcharges | | | | X |

Section 2: BACKGROUND

The District of Columbia Water and Sewer Authority (“DC Water”) originally solicited proposals for a Financial Services Consultants through Request for Proposal (“RFP”) Number WAS-09-033-AA-GA issued April 6, 2009. Raftelis Financial Consultants, Inc. (“RFC”) submitted a successful proposal and was awarded with an on-call contract to provide professional consulting services to DC Water in the fields of:

- Infrastructure financing;
- Rate revenue policy;
- Program management; and
- Financial planning related analysis and services.

Under the contract, work is assigned on a task order basis.

2.1. 2009 Cost of Service Study

RFC received an RFP on its first task order under the contract titled “Cost of Service Study 2009.” The RFP included five specific objectives:

- Review of existing rates and charges for sufficient cost recovery;
- Review and recommendation of fees or charges not currently assessed but possibly applicable for recovery of DC Water ongoing activities;
- Ensure that rates and fees provide for recovery of the cost of providing services;
- Determine whether there are any cross-subsidies among the various water and wastewater retail customer classes; and
- Identify and evaluate at least two alternative rate methodologies to compare to the current rate structure.

RFC proposed to meet these objectives of the Cost of Service (“COS”) Study through a work approach that included a review of miscellaneous fees and charges assessed by DC Water for non-recurring services. One objective was to ensure that all utility services, outside the standard services covered by monthly billing, are recovered through a designated fee or charge. Another objective was to ensure that the fee or charge is reasonable by comparing to other fees and charges assessed by comparable utilities for similar services.

RFC reviewed the miscellaneous fee structure in place in 2009 and compared it against other local and national utilities to determine if fees are consistent with those charged by other utilities for similar services. This comparative analysis allowed DC Water the opportunity to quickly evaluate the level of miscellaneous fees without the time and expense of performing a cost of service analysis for each fee. Our comparative analysis focused on two objectives. First, is the DC Water miscellaneous fee schedule comprehensive in that it recovers the costs of providing non-standard services associated with operation of the utility? Second, are the fees and charges reasonable given those assessed by comparable utilities for similar services?

RFC found that the existing miscellaneous fee schedule represents a generally comprehensive list of revenue recovery items for service beyond standard customer water and wastewater delivery. The purpose of miscellaneous fees and charges is to recover the costs associated with non-standard utility services. Our analysis showed that DC Water's existing fee structure includes most of the same services that other utilities charge for. We did note a few examples of fees charged by other utilities that do not appear on the DC Water miscellaneous fee structure. We also noted some fees that appeared to be out of the range of those charged by other utilities – perhaps indicating a cost of service update was needed. In 2009, update of the retail rate structure took precedence and further evaluation of miscellaneous fees was deferred to a later date.

2.2. 2011 Miscellaneous Fee Study

In early 2011 RFC renewed work on the miscellaneous fee issue. RFC was tasked with looking into eight specific DC Water Miscellaneous Fees and Charges to determine if they should be updated to synchronize with cost of service. Some of the fees selected for evaluation were originally identified in the 2009 COS Study. Others had been added by DC Water due to emerging issues within the utility. The fees under evaluation included:

- Engineering Review and Permitting;
- Environmental Impact Study Form review;
- Large Meter Purchase and Installation;
- Turn-on/Turn-off cost of service;
- Industrial User Permitting and Sampling;
- Temporary Discharge fees;
- Waste Hauler fees; and,
- High Strength Surcharges.

The RFC approach first focused on developing a cost of service basis for the service underlying each fee or charge. We also attempted to benchmark existing DC Water fees, along with the cost of service alternative, against similar fees charged by other neighboring utilities. Finally, we tried to determine the revenue potential each fee would offer, specifically if that revenue would be incremental to the utility, thus offsetting rate increases. Our objective in performing our analysis was:

- Make firm recommendations as to fee modifications;
- Identify policy decisions that should be considered before updating fees; or
- Determine a timeline for further analysis required to update these fees and charges.

The following sections define each fee, detail our analysis process, and identify our conclusion. The conclusions distilled in our analysis will serve as the basis for a Board decision to adjust rates for FY 2012.

Section 3: ENGINEERING AND PERMITTING REVIEW FEES

The Documents and Permits Office within DC Water is responsible for the following functions:

- Manage DC Water's permit functions;
- Perform engineering review of major development projects from conception to construction;
- Coordinate with DCRA in support of the District's permit operations;
- Collaborate with DETS on modifications to the Authority's design standards;
- Review and approve water and sewer availability certificates; and,
- Coordinate construction with DETS Water and Sewer Construction Branch.

The Permit Operations process is a key function for WASA because it facilitates the flow of new customers into the utility systems and plays a vital role in redevelopment of the District as a whole. During interviews, DC Water Staff indicated that this office planned to participate in a District-wide effort to consolidate and streamline the approval process for new construction projects. This effort would co-locate DC Water plan review and permitting along with representatives from other District departments in an effort to expedite the process for new development. These changes were originally accompanied by a request for budget modifications to handle the new process. RFC proposed that DC Water's participation in this effort necessitated a cost-based review of all Engineering Review and Permitting fees. DC Water should reevaluate the costs of these services, then restructure and update fees accordingly. We understand that the development community has expressed a willingness to pay higher fees corresponding to an increased level of service.

DC Water should reassess the cost of providing Engineering and Permitting services to the development community. Proposed reengineering of this process will increase costs over those on the FY 2009 Budget. These costs should be recovered in full by appropriate fees and charges to those served. This Section explains how the cost of service was developed and how a new fee structure of both new and updated fees will meet that cost of providing service.

3.1. Description of Fees

The Documents and Permits Office provides Engineering Review and Permitting services for the development community within the District. This Office is responsible for reviewing, permitting, and inspecting any planned construction activity that will impact the water or sewer systems.

3.2. Existing Fees

Existing fees from Engineering Review and Permitting are shown below in Exhibit 2.

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Exhibit 2: Existing Engineering and Permitting Review Fees

| Fee Description | Fee |
|--|---------|
| Utility Design Review – More than 10 Residential Units or Any Commercial | \$2,500 |
| Utility Design Review – Less than 10 Residential Units (2-10) | \$250 |
| Feasibility Review – Existing or Proposed House (1) | \$300 |
| Sheeting & Shoring – Simple Review | \$250 |
| Sheeting & Shoring – Complex Review | \$1,000 |

3.3. Evaluation Process

Revenue generated from these fees in FY 2009 did not recover the full cost of the Documents and Permits Office. In FY 2009 existing fees generated approximately \$722,500. Our evaluation process of the Engineering Review and Permitting fees had two objectives: set fees at a level to recover costs; and evaluate the fee structure to ensure that services were being charged for in an appropriate manner.

3.3.1. Cost of Service Development

RFC first evaluated the cost of providing services within the Documents and Permits Office. Costs were based on the Proposed FY 2012 DC Water Budget. Projected full time equivalents (FTEs) included in the Budget are shown in Exhibit 3 along with the associated personnel costs, including overhead rates. The blended labor rate for this working group is \$51.20 (\$1,597,500 personnel costs divided by 15 FTEs working 2080 hours per year). Estimated rent and fees are related to the new office space for co-located District services.

2011 MISCELLANEOUS FEE EVALUATION

Exhibit 3: Projected Revenue Requirements based on Proposed Staffing Levels.

| | Salary | # of Personnel | Overhead | Annual Cost |
|---|-----------|----------------|----------|--------------------|
| Expenses | | | | |
| <i>DC Water Labor</i> | | | | |
| Manager | \$125,000 | 1.00 | 1.50 | \$187,500 |
| Supervisor Gr 18 | \$121,000 | 0.00 | 1.50 | \$0 |
| Supervisor Gr 17 | \$90,000 | 2.00 | 1.50 | \$270,000 |
| Supervisor Gr 16 | \$75,000 | 0.00 | 1.50 | \$0 |
| Engineer 1, 2, & 3 | \$80,000 | 4.00 | 1.50 | \$480,000 |
| Tech 1,2,&3 | \$50,000 | 4.00 | 1.50 | \$300,000 |
| GIS Technician/Intake manager | \$75,000 | 1.00 | 1.50 | \$112,500 |
| GIS Technicians/ Intake Tech | \$50,000 | 1.00 | 1.50 | \$75,000 |
| Easement/Covenant Specialist | \$65,000 | 1.00 | 1.50 | \$97,500 |
| Admin Staff | \$50,000 | 1.00 | 1.50 | \$75,000 |
| Subtotal DC Water Personnel and Labor Costs | | 15.00 | | \$1,597,500 |
| <i>Office Space: Rent and Fees</i> | | | | |
| DCRA | | | | \$255,000 |
| Subtotal Office Rental and Fees | | | | \$255,000 |
| Total Expenses | | | | \$1,852,500 |

Since total revenue requirements of \$1,852,500 were about 250% of annual revenue of about \$722,500, DC Water had the option of increasing existing fees by 2.5 times to satisfy cost of service recovery.

3.3.2. Fee Structure

Instead, RFC next looked at the appropriateness of the existing fee structure. Based on interviews with Staff and a high-level review of services provided by other utilities, we determined that the existing fee structure did not provide enough opportunity to differentiate among the many services provided to developers. Specifically, large developments were assessed one fee for design review whether they consisted of eleven residential units or a large hotel and convention complex. For comparison, eleven residential units would have an expected water demand of less than 80 Ccf (hundred cubic feet) per month while very large commercial or industrial developments may have water demands of 10,000 Ccf per month or more. RFC agreed with staff that a higher level of differentiation was needed in the fee structure.

Exhibit 4 shows the fee structure recommended by Engineering to capture the full complement of developer services provided by the Documents and Permits Office. Each service is accompanied by a description of that service. Services have been grouped into Large Projects, applying to eleven or more residential units or non-residential meters larger than 2", and Small Projects, applying to ten or fewer residential units or non-residential meters 2" or smaller.

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Exhibit 4: Descriptions of Alternative Services.

| Large Project Permit Review Fees | |
|---|---|
| Availability Letter (large commercial) | Applicant's lender requests a letter stating water and sewer is available to service the project site. We review the plans against our existing infrastructure mapping and write a letter stating what water and sewer mains are available for connection. |
| Large permit Fast Track Fast Track (15 day) | A project is considered large if the proposed water connection to the public main is greater than 2" in diameter. This review is in support of a DCRA building permit. If an applicant wants to Fast Track or shorten the review time to 2 weeks per submission a premium is assessed. |
| Large Permits Basic | A project is considered large if the proposed water connection size to the public main is greater than 2" in diameter. This review is in support of a DCRA building permit. |
| Large Permit Submissions (Excessive submission: 4 or more) | With each large project application it is presumed that there will be three submissions. If there are excessive submissions then additional review fees of \$1,000 per submission would be assessed. |
| Foundation to Grade - Large Commercial | DC Water verifies that the foundation work will not impact the public utility infrastructure. In support of an applicant's "Foundation to Grade" permit from DCRA we will review and approve a set of plans and stamp them for "Foundation To Grade Only". |
| Approved Project Plan Revision (Project Scope/Design Change) | This revision is required if the preliminary plan has been approved, the final plan has not, and the scope of work changes thus requiring a change to the plans. The applicant is required to submit for re-approval. A fee would be charged for each submission. In the event that an approved project is delayed for in excess of 2 years without obtaining a building permit from DCRA, then the applicant needs to resubmit for re-approval and a fee is charged. |
| Approved Plan Revision (Field Conditions) | The projects have been approved by DC Water and a building permit has been issued by DCRA. Field conditions require a plan revision that requires approval and documentation (i.e. more than just a field modification that the inspector will handle) by DC Water staff. This submission fee covers the review and processing costs. |
| Large Project Sheetting and Shoring (Large Commercial) | Sheeting and shoring is a separate permit category at DCRA from a building permit. DCRA ensures the safety of the support structure; DC Water ensures that the excavation does not adversely impact the surrounding utility infrastructure. Once the impact is assessed, fees plus deposit are collected to cover possible damages to the public infrastructure, inspection of the work and review of pre- and post-cost construction CCTV inspections. |
| Raze Permits | DCRA ensures the structure is razed in accordance with all requirements; DC Water ensures that the existing water and sewer service laterals have been identified and properly abandoned and if the activity of the raze will impact the public infrastructure. DC Water executes a utility release letter that goes back to DCRA for final approval. |
| Abandonment Waiver Requests | An applicant can request to delay the abandonment of the utility connections to a later date if there is adequate reason. DC Water assesses the impacts and if acceptable provides a letter authorizing delayed abandonment. In addition to the fee a security deposit equal to the estimated cost of a performing the abandonment is assessed and held until the work is performed. If not completed within 2-years DC Water is authorized to complete the work using these funds. |

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| Small Project Permit Review Fees | |
|---|--|
| Availability Letter (small) | Small service requests (water service lateral 2" in diameter or less) for an availability letter to secure their funding. DC Water writes an availability letter similar to a large service request. this is typically much less work as the site is significantly smaller. |
| Small Residential | Individual residential request to review and approve plans associated with the procurement of a DCRA construction permit for a project that has a water meter of 2" in diameter or less in size and is NOT commercial. |
| Small Commercial | Request to review and approve plans associated with the procurement of a DCRA construction permit for a project that has a water meter of 2" in diameter or less in size and is a commercial account (multi family, apartments, store, etc) |
| Sheeting and Shoring (small projects) | Sheeting and shoring is a separate permit category at DCRA from a building permit. DCRA ensures the safety of the support structure; DC Water ensures that the excavation does not adversely impact the surrounding utility infrastructure. Once the impact is assessed, fees are collected to cover damage against possible damage to the public infrastructure, inspection of the work and review of pre and cost construction CCTV inspections. The fee is reduced since the extent of the impact is lowered. |
| New Home from a Large Project Subdivision | A large subdivision project (10 or more units) is reviewed and approved by DC Water for the construction of the utility infrastructure. After the developer has installed these base utilities they return to DC Water to obtain approval to connect the individual lots. At this time an account and work orders for water and sewer connections are created. This process accompanies the DCRA building permit for each individual structure. |

3.4. Alternative Fee

A combination of restructuring and increasing fees offers DC Water the best opportunity to meet the needs of the development community and recover the costs of services provided. With Staff assistance, we identified the expected number of times each service would be provided in a year and the time budget to complete each, based on the working group's blended hourly rate of \$51.20/hr. Exhibit 5 shows how the existing and proposed fees compare and projected annual revenue from the proposed fees.

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Exhibit 5: Existing Fees versus Alternative Fees

| | DC Water Existing | DC Water Proposed | Quantity (Unit) | Annual Revenue |
|---|----------------------|----------------------|----------------------|--------------------|
| Project Review | | | | |
| <i>Large Project Permit Review Fees</i> | | | | |
| Availability Letter (Large Commercial) | \$300 | \$500 | 75 | \$37,500 |
| Large Permits Fast Track (15 day) | | \$10,000 | 50 | \$500,000 |
| Large Permits Basic | \$2,500 | \$5,000 | 150 | \$750,000 |
| Large Permits submissions (excessive submission: 4 or more) | | \$1,000 | 25 | \$25,000 |
| Foundation to Grade - Large Commercial | | \$1,000 | 25 | \$25,000 |
| Approved PPR revision (Project Scope/design change) | | \$1,000 | 10 | \$10,000 |
| Approved Plan Revision (field Conditions) | | \$250 | 30 | \$7,500 |
| Large Project Sheeting and Shoring (large Commercial) | \$1,000 | \$1,000 | 100 | \$100,000 |
| Raze Permits | | \$150 | 25 | \$3,750 |
| Abandonment Waiver Request | | \$500 | 5 | \$2,500 |
| <i>Small Project Permit Review Fees</i> | | | | |
| Availability Letter (small) | | \$125 | 25 | \$3,125 |
| Home (Small) | \$300 | \$300 | 200 | \$60,000 |
| New Home from a Large Project Subdivision | \$250 | \$150 | 200 | \$30,000 |
| Non-residential | \$250 | \$2,500 | 100 | \$250,000 |
| Small Sheet and Shore | \$250 | \$500 | 100 | \$50,000 |
| | | | Total Revenue | \$1,854,375 |

One underlying reason for developing a new fee structure was the desire to be responsive to the developer community and their desire for a higher level of service. RFC found that several other utilities in the region offer expedited reviews for a higher fee. Exhibit 5 shows a Large Permit Fast Track offering that would be completed in half the time of the basic review.

3.5. Conclusions

DC Water has a great opportunity to adjust its Engineering Review and Permitting fee structure. The developer community has also expressed an interest in the prospect of paying more for an increased level of service. RFC has structured new rates that are consistent with cost of service principles and that recover the full cost of the Documents and Permits Office. In doing so, DC Water should expect to recover about \$1 million in incremental annual revenue.

Engineering review services are performed by every utility. However, utilities recover the costs for these services in many different ways. Many utilities employ a fee structure similar to the one proposed by DC Water because it most closely ties fees to the cost of providing services. Other common methods of assessing engineering review fees include a percentage of estimated construction project value and front footage. Both of these methods would place a very high price on engineering review for a very large non-residential customer, such as a new hotel. This high cost is inconsistent with the cost of the time to perform the review. In all other cases, RFC is confident that developer costs for performing these reviews is consistent with what that cost would be for other neighboring utilities.

Section 4: ENVIRONMENTAL IMPACT SCREENING FEES

4.1. Description of Fee

DC Water is one of several groups that reviews applications for projects to assess the feasibility and impact of such a project on the water and wastewater system. Customers must complete an environmental impact screening form for the Department of Consumer and Regulatory Affairs (DCRA). “The Environmental Impact Screening Form (EISF) is designed to help applicants and District government agencies to determine whether or not a major action, as defined in DC Law 8-36, (DC Environmental Policy Act of 1989), would likely result in significant adverse environmental impacts, during the project’s construction or operational phase.”¹ The form is reviewed by DCRA and then forwarded to other District agencies for review, including the Department of the Environment, the Department of Public Works, the Office of Planning and DC Water. The EISF fee described here is intended to recover DC Water staff costs for the review of the environmental impact screening form.

4.2. Existing Fee

DC Water does not currently assess an Environmental Impact Screening Fee. There is no revenue recovered for the EISF review.

4.3. Evaluation Process

RFC conducted a cost of service analysis for the level of effort involved by DC Water staff for providing this service. The estimated number of hours spent per staff member is provided in Exhibit 6. The process takes approximately 7.5 hours collectively of staff time. Salary information for each staff member was provided by the finance department. Using a total of 2,080 possible work hours for each staff position, the respective hourly wages were determined, listed in Exhibit 6. Using the time spent and the hourly wages allowed us to build up the cost by position title for a subtotal of \$319.70. DC Water’s overhead multiplier of 1.5 is applied and the final estimated cost per review is \$479.55.

¹ Environmental Impact Screening Form.

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Exhibit 6: Total Cost per Review for Providing Environmental Impact Screening.

| Staff Member (Position Title) | Hours Spent per Review | Hourly Wages | Subtotal per Person |
|--|------------------------|--------------|---------------------|
| Manager, Planning & Design | 0.10 | \$71.88 | \$7.19 |
| Planning Supervisor | 0.50 | \$59.35 | \$29.68 |
| Supervisor, Water & Sewer Design | 0.00 | \$58.14 | \$0.00 |
| Engineer III, Civil Design | 2.00 | \$48.79 | \$97.59 |
| Supervisor, Develop Engineering Review | 0.25 | \$40.87 | \$10.22 |
| Engineer I - Civil Design | 1.50 | \$31.54 | \$47.32 |
| Engineer II- Civil (Contract) | 1.50 | \$36.35 | \$54.53 |
| Sewer Hydraulic Engineer (Contract) | 1.50 | \$48.79 | \$73.19 |
| Subtotal Cost per Review | | | \$319.70 |
| Overhead Multiplier | | | 1.50 |
| Cost to DC WATER per Review | | | \$479.55 |

4.4. Alternative Fee

The cost incurred to provide a review is \$479.55. Therefore, a fee of about \$500 per review would be appropriate to recover the cost required for each EISF review by DC Water staff.

4.5. Conclusions

DCRA may have assessed a fee to developers for EISF reviews. However, none of that revenue was remitted to DC Water nor has DC Water charged its own fee for this service. The level of annual revenue would be minimal - between \$10,000 and \$15,000 annually – and there is currently no mechanism to assess EISF applicants, but establishing a fee for reviewing the environmental screening impact form would be more equitable than rolling the review costs into rates. Once these questions are answered, a new DC Water EISF fee should be considered.

Section 5: LARGE METER PURCHASE AND INSTALLATION FEES

RFC performed a 2009 Cost of Service Study in which we identified Large Meter Purchase and Installation at DC Water to be below the range charged by peer utilities for comparable service. As a result, we determined to revisit the cost of this service in a subsequent analysis.

5.1. Description of Fee

A water connection is considered large if it is 3 inches in diameter or larger. A large water connection generally requires a review by the Department of Engineering and Technical Services to verify the system can provide adequate supply and that the design is in conformance with DC Water standards.² Based on cost of service principles, the fee for a new meter should recover costs associated with the meter purchase as well as the labor involved with the installation.

5.2. Existing Fee

DC Water existing large meter fees considered for this analysis are presented in Exhibit 7Exhibit .

Exhibit 7: Comparative Meter Purchase and Installation Charge

| Meter Size | Total |
|------------|---------|
| 3" | \$1,545 |
| 4" | \$1,708 |
| 6" | \$1,960 |
| 8" | \$2,592 |

Since 2010, DC Water has had a rate structure component that captures capital costs associated with meter purchases and operating costs associated with installation and maintenance. The meter fee is assessed as part of each customer's monthly bill and is scaled based on the size and type of meter. These rates are presented in Exhibit 8.

² Description of Large Meter Connection is extracted from DCWater.com.

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Exhibit 8: Existing Customer Metering Fee

| Meter Size | Monthly Fee per Meter | Meter Size | Monthly Fee per Meter |
|------------|-----------------------|------------|-----------------------|
| 5/8" | \$3.86 | 6 | \$268.14 |
| 3/4 | \$4.06 | 6x1 | \$272.70 |
| 1 | \$4.56 | 6x1x1/2 | \$323.09 |
| 1x1.25 | \$4.83 | 6x1.5 | \$323.09 |
| 1.5 | \$6.88 | 6x3 | \$323.09 |
| 1x1.5 | \$6.88 | 6x3x1/2 | \$323.09 |
| 2 | \$7.54 | 6x3"3/4 | \$323.09 |
| 2x1/2 | \$8.00 | 8 | \$323.29 |
| 2x5/8 | \$8.00 | 8x2 | \$323.29 |
| 3 | \$76.98 | 8x4x1 | \$358.26 |
| 3x5/8 | \$77.94 | 8x4"3/4 | \$358.26 |
| 3x1 | \$77.94 | 10 | \$317.91 |
| 3x3/4 | \$77.94 | 10x2 | \$403.62 |
| 4 | \$137.37 | 10x6 | \$403.62 |
| 4x3/4 | \$138.15 | 10x6x1 | \$403.62 |
| 4x1 | \$138.15 | 12 | \$329.66 |
| 4x1.5 | \$138.15 | 12x6 | \$329.66 |
| 4x2 | \$138.15 | 16 | \$349.45 |
| 4x2"5/8 | \$181.04 | | |

As a result of our review, RFC determined that the existing monthly meter fee does recover all the costs of large meter purchase and installation.

5.3. Evaluation Process

No cost of service analysis was necessary.

5.4. Alternative Fee

No alternative fee is calculated.

5.5. Conclusions

Initially, DC Water's charges for large meter purchase and installation appeared to be below what other utilities charged for similar services. However, upon further discussion with DC Water staff, we agreed that the existing large meter purchase and installation fees presented in Exhibit 8 have been superseded by the monthly meter fee that began in 2010. As a result, all Meter Purchase and Installation Fees should be removed from DC Water's charge structure.

Section 6: TURN-ON/TURN-OFF FEES

As part of this Miscellaneous Fee Study, DC Water staff asked RFC to determine an actual cost of service for account turn-on and turn-offs.

6.1. Description of Fee

Customers connected to DC Water's systems can be assessed turn-on and turn-off fees, typically the result of non-payment of their accounts. For a variety of circumstances, a customer may become delinquent on their water and sewer bill. The utility will charge the customer a fee for costs incurred associated with discontinuing service, as well as a fee when the customer settles their account to re-establish connection and use of the system.

6.2. Existing Fee

DC Water currently assesses Turn-on/Turn-off Fees provided in Exhibit 9. The \$50 charge for each fee is within the range of similar charges at neighboring utilities. Within the region, charges run between \$50 and \$55.

Exhibit 9: DC Water's Existing Turn-on/Turn-off Fees.

| | Turn-on Fee | Turn-off Fee |
|----------------------------|-------------|--------------|
| Existing Fees (all meters) | \$50.00 | \$50.00 |

6.3. Evaluation Process

RFC conducted a cost of service analysis of the costs incurred by the utility associated with turning on and turning off a customer's meter. RFC consulted DC Water customer service staff for estimates regarding the number of personnel and level of effort (in hours) involved with providing this service. The number and type of personnel and the number of hours to carry out a turn-on/turn-off service are provided in Exhibit 10. The hourly rate of each staff member may then be applied to the number of hours to determine the labor cost per type of FTE, shown in Exhibit 11Exhibit .

Exhibit 10: Labor Cost Breakdown per FTE.

| | Labor Cost for Meter Turn-on/Turn-off Fee (Each) | | |
|---------------------|--|----------------------|------------|
| | Technician | Office Administrator | Dispatcher |
| # of FTEs | 1.00 | 1.00 | 1.00 |
| Time (hr) | 1.00 | 0.25 | 0.25 |
| Rate | \$28.03 | \$28.03 | \$28.03 |
| Subtotal | \$28.03 | \$7.01 | \$7.01 |
| Overhead Multiplier | 1.50 | 1.50 | 1.50 |
| Total by FTE | \$42.05 | \$10.51 | \$10.51 |

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The labor breakdown is summed in Exhibit 11 for a total labor cost per service of \$63.07.

Exhibit 11: Total Labor Cost per Turn-on/Turn-off Service.

| Labor Cost | Turn-on Fee | Turn-off Fee |
|----------------------|-------------|--------------|
| Technician | \$42.05 | \$42.05 |
| Office Administrator | \$10.51 | \$10.51 |
| Dispatcher | \$10.51 | \$10.51 |
| Total Labor Cost | \$63.07 | \$63.07 |

Incorporated into this cost of service analysis is a small component to account for the use of a vehicle for transportation to and from the account site, in this case a customer's dwelling or business. For this analysis, the estimated number of miles driven per year of 12,000 miles was multiplied by the 2011 IRS mileage rate of \$0.51 for a total annual vehicle cost of \$6,120. Assuming the utility provides this service approximately 2,000 times a year, the total asset cost of the vehicle per service is \$3.06 (Exhibit 12).

Exhibit 12: Cost of Vehicle/Equipment.

| Asset Cost for Fee | |
|--------------------------|------------|
| Miles per Year | 12,000 |
| IRS 2011 Mileage Rate | \$0.51 |
| Vehicle Cost per Year | \$6,120.00 |
| # of Turn-on/off's | 2,000 |
| Total Asset Cost per Job | \$3.06 |

The full cost of service analysis determined the utility incurs a total cost of \$66.13 per service, presented in Exhibit 13.

Exhibit 13: Total Cost of Service Fee for Turn-on/Turn-off Service.

| Total Costs | Turn-on Fee | Turn-off Fee |
|------------------|-------------|--------------|
| Total Labor Cost | \$63.07 | \$63.07 |
| Total Asset Cost | \$3.06 | \$3.06 |
| Total Fee | \$66.13 | \$66.13 |

6.4. Alternative Fee

DC Water may choose to update existing turn-on/turn-off fees to more accurately reflect cost of service. The alternative fee for turn-on/turn-off service is \$66.13 for each service.

6.5. Conclusions

Existing fees are consistent with neighboring utilities' charges of \$50 to \$55 per occurrence. The cost of service analysis is calculated based on time (1.5 hours) and materials, and determines the utility incurs cost slightly higher than its current fees. RFC recognizes that other policy decisions may impact DC Water's decision to raise existing fees to meet cost of service. Customers falling behind on utility bills are often

2011 MISCELLANEOUS FEE EVALUATION

economically disadvantaged and DC Water has historically been sensitive to the affordability of its services. Increasing its turn-on/turn-off fees at this point may further burden disadvantaged customers without providing consequential revenue.

Section 7: INDUSTRIAL USER PERMITTING AND SAMPLING FEES

Many utilities have a group tasked with monitoring, sampling, and inspecting significant industrial users as defined under the Federal Clean Water Act.

7.1. *Description of Fee*

“Dischargers of processed wastewater (e.g., non-domestic wastewater containing pollutants or chemicals used in various business processes or activities other than janitorial) to the public sewer system must report their activities to DC Water's Pretreatment Coordinator.”³ Currently, significant industrial users must obtain a permit from the utility every three years detailing the type and strength of discharge from their business.

7.2. *Existing Fee*

DC Water does not currently assess any Industrial User Permitting or Sampling Fees to recover the cost of this service.

7.3. *Evaluation Process*

After early discussions with DC Water staff, it was deemed more appropriate to derive two separate fees. Currently industrial user permits are issued on a three year basis. Moving to a five year cycle is currently under review for implementation. However, sampling, inspection, and reporting per permit is conducted annually. Therefore, RFC conducted a cost of service analysis to determine appropriate fees to charge customers for industrial user permits and for the annual sampling, inspection, and reporting.

7.3.1. *Calculation of Hourly Labor*

The basis of the cost of service analysis for both permit and sampling fees are the staff requirements for providing this service. More specifically, the cost can be built up from the hourly wages of staff involved. Since the same personnel conduct these services, it is appropriate to address the cost per hour of each FTE. The hourly wages of the two FTEs are presented in Exhibit 14.

Exhibit 14: Hourly Wage Rate Determination.

| Labor Analysis | |
|---------------------|---------|
| Hourly wage per FTE | |
| FTE #1 | \$76.10 |
| FTE #2 | \$51.35 |

³ Description of Industrial User Permit is extracted from DCWater.com.

2011 MISCELLANEOUS FEE EVALUATION

7.3.2. Industrial User Permit Fees

Significant industrial user permits are issued on a three year cycle. There are two classes of permits issued: 1) Industrial Users (all identified categories) and 2) Industrial Users General Permit. Currently, DC Water does not issue general permits, but the utility may want to consider establishing a fee methodology in the event there becomes a need for a general permit.

RFC discussed the estimated level of effort per FTE (hours) involved in the permitting process with staff. According to the assessment provided in Exhibit 15, costs associated with only one FTE's time is included in the permitting process. Using the labor hourly wages established above, the total cost per issuance by permit type is provided in Exhibit 16.

Exhibit 15: Estimated Labor for Issuance of an Industrial User Permit.

| | Estimated Hours per Permit | |
|---------------------|---|-----------------------------------|
| | Industrial User (all categories except General) | Industrial User General Permit |
| FTE #1 (new permit) | 8.00 | 2.00 |
| FTE #2 (new permit) | 0.00 | 0.00 |
| FTE #1 (renewal) | 4.00 | 1.00 |
| FTE #2 (renewal) | 0.00 | 0.00 |

Exhibit 16: Total Cost for Issuance of an Industrial User Permit.

| | Fee per Permit | |
|--------------------------|---|-----------------------------------|
| | Industrial User (all categories except General) | Industrial User General Permit |
| FTE #1 (new permit) | \$608.84 | \$152.21 |
| FTE #2 (new permit) | \$0.00 | \$0.00 |
| FTE #1 (renewal) | \$304.42 | \$76.10 |
| FTE #2 (renewal) | \$0.00 | \$0.00 |
| Total for new permit | \$608.84 | \$152.21 |
| Total for renewal permit | \$304.42 | \$76.10 |

7.3.3. Sampling, Inspection, and Reporting Fees

Even though industrial user permits are issued on multi-year cycles, DC Water conducts periodic monitoring of the discharge from the customer account. The process involves sampling, inspection, and reporting of results. The customer discharge is sampled or collected at the physical connection to the wastewater system, defined as an outfall. In some cases, a customer may have two connections to the system. For this reason, the fees are developed separately for 1 or 2 outfalls. Once the sample(s) is collected, analysis is conducted in a laboratory to test for compliance according to permit requirements. Finally, the department must report the findings of the monitoring.

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DC Water staff has concluded that different levels of effort are necessary depending on the customer type. The cost of service analysis has been conducted for six categories:

| Description | Number of Outfalls | |
|--|--------------------|-----------|
| Significant or Non-Significant Categorical Industrial User | 2 Outfalls | 1 Outfall |
| Significant Non-Categorical Industrial User | 2 Outfalls | 1 Outfall |
| Non-Significant Non-Categorical Industrial User | 2 Outfalls | 1 Outfall |

Significant Industrial User Permit “is issued to significant industrial users with an average process flow of 25,000 gallons per day or more, users who contribute 5% or more of the total inflow or organic loading to Blue Plains, users with a potential to discharge significant concentrations of regulated pollutants, federally mandated categorical industries, or users who are determined to be in need of regulation.”⁴

Non-significant Industrial User Permit “is issued to minor industrial/commercial businesses and government agencies that have less than 25,000 gallons per day of process flow and a small potential to cause an upset or pass-through event at Blue Plains. Businesses with contaminated groundwater sump discharges may also be issued this type of permit. These permits are valid for three years.”⁵

DC Water staff provided an estimation of labor effort, shown in Exhibit 17.

Exhibit 17: Estimated Labor for Sampling, Inspection, and Reporting.

| | Estimated Hours per Sampling, Inspection, and Reporting Activity | | | | | |
|-------------|---|--|--|---|--|---|
| | Significant or Non-Significant Categorical Industrial User (2 outfalls) | Significant or Non-Significant Categorical Industrial User (1 outfall) | Significant Non-Categorical Industrial User (2 outfalls) | Significant Non-Categorical Industrial User (1 outfall) | Non-Significant Non-Categorical Industrial User (2 outfalls) | Non-Significant Non-Categorical Industrial User (1 outfall) |
| Sampling | | | | | | |
| FTE #1 | 4.00 | 3.00 | 4.00 | 3.00 | 0.80 | 0.60 |
| FTE #2 | 8.00 | 6.00 | 8.00 | 6.00 | 1.60 | 1.20 |
| Inspection | | | | | | |
| FTE #1 | 12.00 | 12.00 | 12.00 | 12.00 | 2.40 | 2.40 |
| FTE #2 | 6.00 | 6.00 | 6.00 | 6.00 | 1.20 | 1.20 |
| Reporting | | | | | | |
| FTE #1 | 1.50 | 1.00 | 1.50 | 1.00 | 0.30 | 0.20 |
| FTE #2 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Total Hours | | | | | | |
| FTE #1 | 17.50 | 16.00 | 17.50 | 16.00 | 3.50 | 3.20 |
| FTE #2 | 14.00 | 12.00 | 14.00 | 12.00 | 2.80 | 2.40 |

Applying labor hourly wages from above to the hourly estimates per service results in labor costs by FTE per category shown in Exhibit 18. Other costs incurred aside from labor include laboratory services, supplies, software costs, and costs for an additional outside service contract. The estimated costs of each per sampling category contribute to the combined total cost per customer category, provided in Exhibit 18.

⁴ Description of Significant Industrial User Permit is extracted from DCWater.com.

⁵ Description of Non-significant Industrial User Permit is extracted from DCWater.com.

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Exhibit 18: Total Cost per Customer Type for Sampling, Inspection, and Reporting.

| | Fee Calculation for Inspection, Sampling, and Reporting | | | | | |
|-----------------------|---|--|--|---|--|---|
| | Significant or Non-Significant Categorical Industrial User (2 outfalls) | Significant or Non-Significant Categorical Industrial User (1 outfall) | Significant Non-Categorical Industrial User (2 outfalls) | Significant Non-Categorical Industrial User (1 outfall) | Non-Significant Non-Categorical Industrial User (2 outfalls) | Non-Significant Non-Categorical Industrial User (1 outfall) |
| Labor | | | | | | |
| FTE #1 | \$1,331.83 | \$1,217.67 | \$1,331.83 | \$1,217.67 | \$266.37 | \$243.53 |
| FTE #2 | \$718.96 | \$616.25 | \$718.96 | \$616.25 | \$143.79 | \$123.25 |
| Laboratory Services | \$800.00 | \$400.00 | \$800.00 | \$400.00 | \$160.00 | \$80.00 |
| Sampling Supplies | \$200.00 | \$100.00 | \$200.00 | \$100.00 | \$40.00 | \$20.00 |
| Hach Service Contract | \$100.00 | \$50.00 | \$100.00 | \$50.00 | \$20.00 | \$10.00 |
| Linko Software | \$36.00 | \$36.00 | \$36.00 | \$36.00 | \$36.00 | \$36.00 |
| Total | \$3,186.79 | \$2,419.92 | \$3,186.79 | \$2,419.92 | \$666.16 | \$512.78 |

7.4. ***Alternative Fee***

Exhibit 19 and Exhibit 21 provide alternative fees for issuing industrial user permits and for the sampling, inspection, and reporting process of ensuring industrial users are remaining in compliance with the standards of their permit, respectively.

DC Water staff has estimated there will be 3 new and 22 renewed permits for industrial users (all categories except General) during a multi-year cycle. As previously mentioned, DC Water does not currently issue any General permits, and thus has not included any in the forecast. To evaluate projected revenue from the implementation of the alternative permitting fees, fees have been applied to the estimated number of respective permits, shown in Exhibit 20. A five-year cycle was used to determine the estimated annual revenue for a conservative estimate since the three-year cycle may be phased out.

The projected annual revenue from the implementation of annual sampling, inspection, and reporting fees is shown in Exhibit 22. Here, once again, DC Water staff estimated the number of customer types, which results in the annual revenue per category combining for a total projected \$41,696.17.

Exhibit 19: Alternative Fees for Industrial User Permits.

| | Fee per Permit | |
|--|----------------|----------|
| | New Permit | Renewal |
| Industrial User (all categories except | \$608.84 | \$152.21 |
| Industrial User General Permit | \$304.42 | \$76.10 |

2011 MISCELLANEOUS FEE EVALUATION

Exhibit 20: Projected Revenue from Industrial User Permit Fees.

| Classification | New Permit | Renewal |
|---|------------|-------------------|
| Industrial User (all categories except General) | \$608.84 | \$152.21 |
| Permits Issued (per 5 years) | 3 | 22 |
| Subtotal 5-year Revenue | \$1,826.51 | \$3,348.60 |
| Subtotal Average Annual Revenue | \$365.30 | \$669.72 |
| Total Average Annual Revenue | | \$1,035.02 |

Exhibit 21: Alternative Fees for Sampling, Inspection, and Reporting.

| Annual Fee for Sampling, Inspection, and Reporting | |
|---|------------|
| Significant or Non-Significant Categorical Industrial User (2 outfalls) | \$3,186.79 |
| Significant or Non-Significant Categorical Industrial User (1 outfall) | \$2,419.92 |
| Significant Non-Categorical Industrial User (2 outfalls) | \$3,186.79 |
| Significant Non-Categorical Industrial User (1 outfall) | \$2,419.92 |
| Non-Significant Non-Categorical Industrial User (2 outfalls) | \$666.16 |
| Non-Significant Non-Categorical Industrial User (1 outfall) | \$512.78 |

2011 MISCELLANEOUS FEE EVALUATION

Exhibit 22: Project Revenue for Sampling, Inspection, and Reporting.

| Classification | 2 Outfalls | # of Industrial Users | Revenue |
|--|------------|-----------------------|--------------------|
| Significant or Non-Significant Categorical Industrial User | \$3,186.79 | 1 | \$3,186.79 |
| Significant Non-Categorical Industrial User | \$3,186.79 | 6 | \$19,120.72 |
| Non-Significant Non-Categorical Industrial User | \$666.16 | 5 | \$3,330.79 |
| Classification | 1 Outfalls | # of Industrial Users | Revenue |
| Significant or Non-Significant Categorical Industrial User | \$2,419.92 | 0 | \$0.00 |
| Significant Non-Categorical Industrial User | \$2,419.92 | 6 | \$14,519.35 |
| Non-Significant Non-Categorical Industrial User | \$512.78 | 3 | \$1,538.35 |
| Total Revenue | | | \$41,696.17 |

7.5. Conclusions

Fees for industrial user permits and for sampling, inspection, and reporting would be new fees for DC Water. They currently do not assess any charges, but have the right to do so according to their municipal code:

In the case of Industrial Users, [DC Water] shall use individual or general permits or equivalent individual or general control mechanisms. These permits, orders, or other similar means or individual or general control mechanisms shall comply with all applicable federal laws and regulations. [DC Water] is authorized to set and collect fees and charges as may be necessary or appropriate to recoup costs associated with its responsibilities pursuant to this subchapter and pursuant to federal laws and regulations governing the issuance of permits for the discharge or potential discharge of wastewater into publicly owned treatment plants.⁶

The fees developed above would recover the cost of providing this service. The fees would recover approximately \$43,000 of additional revenue for DC Water.

⁶ District of Columbia Code: DC ST § 8-105.07.

Section 8: TEMPORARY DISCHARGE FEES

Temporary Discharge Permits are issued by the Pretreatment Coordinator's office. RFC was asked to look at the cost of service basis for setting a new permit fee.

8.1. *Description of Fee*

"DC Water allows customers to discharge groundwater (i.e. construction or dewatering projects, groundwater remediation systems) to the public sewer system on a case-by-case basis. A temporary discharge authorization permit must be obtained for this activity."⁷

8.2. *Existing Fee*

DC Water does not currently assess a fee to receive a Temporary Discharge Permit. However, temporary discharges are supposed to be metered and they are charged a special volumetric rate.

8.3. *Evaluation Process*

Since the same DC Water personnel oversee the issuance of temporary discharge permits and the industrial user permitting and sampling, RFC conducted a cost of service analysis in conjunction with the analysis detailed in the previous section. Specifically, the same hourly wages to build up cost of service are used and provided again in Exhibit 23.

Exhibit 23: Hourly Wage Determination.

| Labor Analysis | |
|---------------------|---------|
| Hourly wage per FTE | |
| FTE #1 | \$76.10 |
| FTE #2 | \$51.35 |

There are four types of temporary discharge permits, and there are separate fees for new and modified permits for each type. The four types are:

- 2-year Permit
- 1-year Permit
- 1-time Permit
- Stormwater only Permit

In the same manner as the previous analysis, the hourly wages are applied to DC Water staff's estimate of the number of hours per FTE per type of temporary discharge permit, listed in Exhibit 24, for a total cost per permit type, presented in Exhibit 25.

⁷ Description of Temporary Discharge Permit is extracted from DCWater.com.

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Exhibit 24: Estimated Labor for Temporary Discharge Permit.

| | Estimated Hours per Permit | | | |
|--------------|----------------------------|---------------------|---------------------------------|-------------------------------|
| | TDA Permit (2-year) | TDA Permit (1-year) | TDA Permit (one-time discharge) | TDA Permit (storm water only) |
| New Permit | | | | |
| FTE #1 | 6.00 | 4.00 | 2.00 | 2.00 |
| FTE #2 | 0.00 | 0.00 | 0.00 | 0.00 |
| Modification | | | | |
| FTE #1 | 1.00 | 1.00 | 1.00 | 1.00 |
| FTE #2 | 0.00 | 0.00 | 0.00 | 0.00 |

Exhibit 25: Total Cost per Temporary Discharge Permit.

| | Fee per Permit | | | |
|--------------|---------------------|---------------------|---------------------------------|-------------------------------|
| | TDA Permit (2-year) | TDA Permit (1-year) | TDA Permit (one-time discharge) | TDA Permit (storm water only) |
| Fee | | | | |
| New Permit | \$456.63 | \$304.42 | \$152.21 | \$152.21 |
| Modification | \$76.10 | \$76.10 | \$76.10 | \$76.10 |

8.4. Alternative Fee

Exhibit 26 presents the alternative fees for the Temporary Discharge Permits.

Exhibit 26: Alternative Fee for Temporary Discharge Permit.

| | Fee per Permit | |
|---------------------------------|----------------|--------------|
| | New Permit | Modification |
| TDA Permit (2-year) | \$456.63 | \$76.10 |
| TDA Permit (1-year) | \$304.42 | \$76.10 |
| TDA Permit (one-time discharge) | \$152.21 | \$76.10 |
| TDA Permit (storm water only) | \$152.21 | \$76.10 |

8.5. Conclusions

DC Water does not currently assess a fee for issuing Temporary Discharge Permits; however, they do incur costs for providing this service. The fees established in Exhibit

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26 represent cost of service based fees. DC Water may choose to assess separate temporary discharge permit fees or recover the permitting costs through the special volumetric rates for temporary discharges into the system.

Section 9: WASTE HAULER FEES

RFC was asked to evaluate the existing DC Water program and determine the ability to transition to volumetric fees for hauled waste discharges.

9.1. *Description of Fee*

“DC Water issues permits to discharge domestic septage, grease trap waste, and other non-hazardous waste at Blue Plains Wastewater Treatment Facility. A waste hauler will be required to obtain a permit prior to discharge.”⁸ DC Water currently assesses an annual fee to obtain a permit and be granted permission to discharge hauled waste at Blue Plains.

9.2. *Existing Fee*

DC Water charges an annual waste hauling fee on a “per truck” basis based on the capacity of that truck. Once the fee is paid, that truck may discharge any amount of hauled waste as many times as it wants over the course of that year. Currently there are four capacity tiers, and fees increase as the truck capacity increases. The existing rates and rate structure is presented in Exhibit 27. No volumetric charge or “per discharge” fee is assessed.

Exhibit 27: DC Water’s Existing Waste Hauler Fees.

| Existing Fee | | |
|-------------------------------------|----|----------|
| Vehicles 0-100 gallons | \$ | 100.00 |
| Vehicles 101-500 gallons | \$ | 255.00 |
| Vehicles 501-1,500 gallons | \$ | 590.00 |
| Vehicles greater than 1,500 gallons | \$ | 1,650.00 |

9.3. *Evaluation Process*

Since the cost of accepting and treating hauled waste is proportional to the volume and strength of the discharge, it is typical in the industry to assess hauled waste fees on a volumetric basis.

RFC looked at how hauled waste fees may be structured on a volumetric basis. First, we determined the level of revenue the existing fees recover. Exhibit 28 shows the approximate revenue recovered in FY 2010 based on the number of waste hauler permits issued. The level recovered is \$17,610.

⁸ Description of Industrial User Permit is extracted from DCWater.com.

2011 MISCELLANEOUS FEE EVALUATION

Exhibit 28: Estimated FY 2010 Revenue from Existing Fees.

| | Existing Fee | # of Permits in 2010 | Revenue |
|-------------------------------------|--------------|-------------------------|---------------------|
| Vehicles 0-100 gallons | \$ 100.00 | 4 | \$ 400.00 |
| Vehicles 101-500 gallons | \$ 255.00 | 0 | \$ - |
| Vehicles 501-1,500 gallons | \$ 590.00 | 4 | \$ 2,360.00 |
| Vehicles greater than 1,500 gallons | \$ 1,650.00 | 9 | \$ 14,850.00 |
| | | | <u>\$ 17,610.00</u> |

Next, we determined the number of gallons discharged. In FY 2010, we estimated 5.758 million gallons or about 7,700 Ccf were discharged by waste haulers, based on the assumption that trucks were full at discharge. Using the projected revenue above and the number of gallons, a per gallon rate of \$0.00306 can be calculated, which equates to \$2.29 per Ccf, shown in Exhibit 29. This represents the equivalent volumetric unit cost for the hauled waste.

Exhibit 29: Volumetric Unit Cost Determination.

| Rate per Ccf | |
|-------------------------|----------------|
| Amount to Recover (\$) | \$ 17,610.00 |
| Discharged Amount (gal) | 5,758,200 |
| Amount per gal | \$ 0.00306 |
| Amount per Ccf | \$ 2.29 |

The equivalent volumetric rate is below the existing retail volumetric rate of \$3.79 per Ccf for domestic strength discharges. Typically, hauled waste is much higher in strength than domestic waste.

9.4. Alternative Fee

Instead of a flat annual fee, it may be more equitable according to cost of service principles to charge waste haulers on a per gallon basis. The level of revenue recovered by the existing fees could be recovered using a volumetric rate of \$0.00306. However, Exhibit 30 shows the approximate cost for the Baltimore Bureau of Wastewater to treat one gallon of hauled waste. If this is indicative of the cost to treat hauled waste at Blue Plains, then DC Water's rate is considerably lower than cost of service.

Exhibit 30: Sample Hauled Waste Cost to Treat

| | |
|---|---------|
| Cost per gallon for BOD treatment | \$ 0.03 |
| Cost per gallon for TSS treatment | \$ 0.02 |
| Total cost per gallon to treat hauled waste | \$ 0.05 |

9.5. Conclusions

Over the long term, DC Water should consider moving to a volumetric charge to more equitably recover the cost of service, since the cost for treating hauled waste is proportional to the volume and strength discharged. RFC recognizes that developing an appropriate, cost of service-based, volumetric charge will only be possible as a result of the cost of service study planned for 2012. RFC recognizes that a cost of service-based approach must be weighed against encouraging waste haulers to use Blue Plains instead of illegally dumping into the collection system. However, DC Water's waste hauler fees seem to be at the low end of the range assessed by other utilities. DC Water may want to consider a policy decision to increase fees to be more in line with those of their nearest neighbor, Washington Suburban Sanitary Commission, who assesses waste haulers with a similar rate structure, provided in Exhibit 31. The higher "per truck" fees may provide an interim solution until a cost of service-based volumetric fee can be developed.

Exhibit 31: Washington Suburban Sanitary Commission's Existing Waste Hauler Fees.

| WSSC's Waste Hauler Fees | | |
|------------------------------------|--------------|-----------------------|
| Volumetric Vehicle Distinctions | FY 2011 Fees | Proposed FY 2012 Fees |
| Vehicles 0-49 gallons | \$ 140.00 | \$ 154.00 |
| Vehicles 50-799 gallons | \$ 2,060.00 | \$ 2,266.00 |
| Vehicles 800-1,499 gallons | \$ 5,610.00 | \$ 6,171.00 |
| Vehicles 1,500 gallons and greater | \$ 13,310.00 | \$ 14,641.00 |

Section 10: HIGH STRENGTH SURCHARGES

DC Water's Pretreatment Coordinator is tasked with monitoring discharges or non-domestic strength waste. Many utilities assess a surcharge to these sewer customers based on the higher treatment demands they place on the system.

10.1. Description of Fee

Some customers place a higher demand on the wastewater system through discharge of high strength wastewater. For instance, restaurants and food processors discharges are typically higher in both total suspended solids ("TSS") and biological oxygen demand ("BOD") than the average customer. The current uniform volumetric rate for wastewater requires that all customer share in the cost of treating that high strength wastewater. However, high strength waste costs more to treat at Blue Plains than domestic strength waste. Surcharges are a common method to ensure that high strength dischargers pay their fair share of wastewater treatment costs.

10.2. Existing Fee

DC Water does not currently assess high strength surcharges.

10.3. Evaluation Process

RFC proposes that a cost of service analysis planned for 2012 will provide a basis for development and implementation of a high strength surcharge.

10.4. Alternative Fee

No alternative surcharges are calculated.

10.5. Conclusions

Implementing high strength surcharges would potentially generate a significant level of additional revenue for the utility – in excess of \$1,000,000 annually. The amount of revenue depends on whether DC Water extends high strength surcharges beyond its existing monitored industrial users to a new non-monitored customer class covered by a general permit. Many utilities have a non-monitored customer class that includes commercial enterprises such as restaurants. However, there are two primary issues. The first issue is the administration requirements for implementation of high strength surcharges. Non-monitored high strength customers such as restaurants or laundries, will have to be identified in the Customer Information System so that they can be assessed a higher volumetric rate. This will require a significant level of effort. The second issue is surcharge development depends on a cost of service study scheduled for 2012. Therefore, RFC recommends revisiting high strength surcharges in 2012 to determine the feasibility of implementation.

Section 11: SUMMARY

The conclusions of this analysis may lead DC Water to make adjustments to the existing structure of miscellaneous fees and charges. RFC will present these conclusions to the Retail Rates Committee of the Board. The Retail Rates Committee will make specific recommendations regarding fees and charges to the Board for adoption into the FY 2012 revenue structure. RFC's conclusions generally fall into two areas:

1. Adoption of a new or updated fee; and,
2. Deferral of consideration until DC Water can address outstanding issues or until a planned 2012 COS Study can provide a firm fee basis for implementation.

Exhibit 32 below categorizes how our conclusions may fall with respect to each fee under consideration:

Exhibit 32: Study Conclusions

| DESCRIPTION | New/ Updated | Calculated Cost of Service | Calculated Annual Revenue Potential | Implementation Date or Deferred |
|---------------------------------------|-----------------|----------------------------------|--|---------------------------------------|
| Engineering Review and Permitting | both | Yes | \$1 million | FY 2012 |
| Environmental Impact Study Fees | new | yes | \$15,000 | deferred |
| Large Meter Installation | updated | yes | \$0 | FY 2012 |
| Turn-on/Turn-off | updated | yes | \$0 | deferred |
| Industrial User Permitting & Sampling | new | yes | \$50,000 | FY 2012 |
| Temporary Discharge Fees | new | yes | \$0 | deferred |
| Waste Hauler Fees | updated | 2012 | tbd* | FY 2013 |
| High Strength Surcharges | new | 2012 | tbd* | FY 2013 |

*to be determined pending planned FY 2012 Cost of Service Study

Fees that have been deferred pending a planned 2012 COS Study will be incorporated into that future Task Order scope. The ability to develop volumetric hauled waste rates or high strength surcharges requires a more detailed cost allocation among wastewater flow and pollutants such as suspended solids, biological oxygen demand, phosphorus, and nitrogen. These fees will be added to the scope of the 2012 COS Study.