Philadelphia Water Department
Development Services Committee

Thursday, August 15, 2019
Introduction

1. Recap Items
   - Developer ROW Incentive
   - Maintenance Guide

2. Today’s Discussion

3. Next Steps
Meeting Agenda
Stormwater Credits and Incentives

- Presentation
  - Background
  - Long-Term Impact Analysis
  - Potential Program Adjustments
  - Summary
- Discussion
Focus Topic: Stormwater Credits and Incentives
Credit Program Background

- Definitions
- Stormwater Rate Structure Overview
- Credit Program Overview
- Programs Impacting Stormwater Rates
- Recovery of Stormwater Customer Program Costs
**Gross Area (GA):** A property’s entire parcel area.

**Open Space:** The pervious area of a parcel (equal to GA minus IA).

**Impervious Area (IA):** A surface which restricts the infiltration of water. Examples: roofs, driveways, sidewalks, parking lots, etc.

**Surface Discharge:** The discharge of stormwater runoff from a property to an adjacent surface water body without use of PWD infrastructure.

**Impervious Area Managed:** Impervious area that directs runoff to surface water bodies or to approved Stormwater Management Practices (SMPs).

**Impervious Area Reduction (IAR):** IA directed to pervious area or which has characteristics similar to pervious area.
Overview of PWD’s Current Stormwater Rate Structure

**RESIDENTIAL**

- Includes residential properties up to 4 dwelling units (excluding condominiums)
- Uniform Stormwater Charge (per parcel) based on the average residential GA and IA
- Billing and Collection Charge (per account)

**NON-RESIDENTIAL**

- Includes all properties which cannot be classified as residential
- GA Charge ($ per 500 square feet) based on parcel’s actual GA
- IA Charge ($ per 500 square feet) based on parcel’s actual IA
- Billing and Collection Charge (per account)

*Note – condominium properties are included with non-residential for the purposes of this presentation*
## Example Property – Parcel Area Based Fee

![ Parcel Area Image ]

### Gross Area Charge

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Area</td>
<td>39,790 sf</td>
</tr>
<tr>
<td>Billed Gross Area</td>
<td>40,000 sf</td>
</tr>
<tr>
<td>Gross Area Unit Charge</td>
<td>$0.70 / 500 sf</td>
</tr>
<tr>
<td>Monthly Gross Area Charge</td>
<td>$56.08</td>
</tr>
</tbody>
</table>

### Impervious Area Charge

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impervious Area</td>
<td>39,790 sf</td>
</tr>
<tr>
<td>Billed Impervious Area</td>
<td>40,000 sf</td>
</tr>
<tr>
<td>Impervious Area Unit Charge</td>
<td>$5.30 / 500 sf</td>
</tr>
<tr>
<td>Monthly Impervious Area Charge</td>
<td>$424.32</td>
</tr>
</tbody>
</table>

### Total Monthly Parcel Area Based Fee:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Monthly Parcel Area Based Fee</td>
<td>$480.40</td>
</tr>
</tbody>
</table>

*Source: PWD's Parcel Viewer*

*Note: Gross Area and Impervious Area are rounded to the nearest 500 square feet for billing purposes.*

*sf = square feet*
## Current Credit Program

<table>
<thead>
<tr>
<th>Type</th>
<th>Options</th>
<th>Credit Maximums[^3]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Non-Surface</td>
</tr>
<tr>
<td>IA Credit</td>
<td>IAR</td>
<td>100%</td>
</tr>
<tr>
<td></td>
<td>IA Managed</td>
<td>80%</td>
</tr>
<tr>
<td>GA Credit</td>
<td>GA Credit for IA Managed</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>NRCS[^1] Curve Number Open Space</td>
<td>80%</td>
</tr>
<tr>
<td>NPDES[^2] Credit</td>
<td>IA Managed</td>
<td>7%</td>
</tr>
<tr>
<td></td>
<td>Open Space GA</td>
<td>7%</td>
</tr>
</tbody>
</table>

[^3]: See PWD Rates and Charges § 4.5 (d) for details on maximum credit. Also refer to Stormwater Management Service Charge Credit and Appeals Manual.

[^1]: NRCS - National Resources Conservation Service

[^2]: NPDES - National Pollutant Discharge Elimination System

[^3]: Only Non-Residential and Condominium properties are eligible for SW Credit

Current credit technical criteria requires management of the first inch of runoff whereas current regulations require management of 1.5-inches of runoff.
Programs Impacting Stormwater Rates

- PWD currently offers $25 million in Stormwater Management Incentive Program (SMIP) and Greened Acre Retrofit Project (GARP) grants annually.
  - Customers receive both grant assistance and stormwater credit once the stormwater management practice is constructed and certified.
- PWD offers a Stormwater Customer Assistance Program (Stormwater CAP) to customer that were highly impacted by the transition from their meter based stormwater fee.
## Stormwater Customer Program Cost Recovery

<table>
<thead>
<tr>
<th>Program</th>
<th>Cost Recovery Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMIP/GARP (Grant Costs)</td>
<td>• Recovered by wastewater <em>(sanitary &amp; storm)</em> revenues(^1).</td>
</tr>
<tr>
<td></td>
<td>• 40% recovered via sanitary rates and 60% from stormwater rates.</td>
</tr>
<tr>
<td>Stormwater Credits</td>
<td>• Recovered by stormwater revenues.</td>
</tr>
<tr>
<td></td>
<td>• Proportionate recovery from all stormwater customer types (via a reduction in</td>
</tr>
<tr>
<td></td>
<td>billable units).</td>
</tr>
<tr>
<td>Stormwater CAP</td>
<td>• Recovered from non-residential stormwater customers only.</td>
</tr>
</tbody>
</table>

\(^1\)Net of wholesale allocation in accordance with applicable contract terms.
Long Term Impact Analysis
Long-Term Impact Analysis Objectives

1. Project long-term impact of the credit program on:
   - Billable units of service
   - Stormwater revenues and rates

2. Assess impacts from new 2015 Stormwater Billing Data [e.g. impervious area (IA) and gross area (GA) data]

3. Identify potential imbalances with respect to Stormwater Customers
Credit Projections Approach
For projection purposes, credits were categorized as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Credit Types</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMIP/GARP</td>
<td>Credits from SMIP/GARP funded projects</td>
<td>• IA Managed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• GA Managed</td>
</tr>
<tr>
<td>Surface Discharge</td>
<td>Credits related to surface discharge properties</td>
<td>• IA Managed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• GA Managed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Open Space GA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• NPDES</td>
</tr>
<tr>
<td>All Others</td>
<td>Credits related to Impervious Area Reductions and Non-Surface discharge</td>
<td>Impervious Area Reductions</td>
</tr>
<tr>
<td></td>
<td>properties, <em>typically resulting from development/redevelopment activity</em></td>
<td>Non-Surface Discharge:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• IA Managed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• GA Managed</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Open Space GA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• NPDES</td>
</tr>
</tbody>
</table>
Preliminary Results
Long-Term Credit Projections - Annual Revenue Impact

- Annual CAP: Decreases from $2.3 million in FY 2019 to $2.1 million in FY 2021
- Annual SMIP/GARP Grant Amount: $25 million
- Annual Contra Revenue from Credits increases:

<table>
<thead>
<tr>
<th></th>
<th>FY 2019</th>
<th>FY 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Existing Credits</td>
<td>$19.6 million</td>
<td>$20.5 million</td>
</tr>
<tr>
<td>Future Credits</td>
<td>-</td>
<td>$3.8 million</td>
</tr>
<tr>
<td>Total Credits</td>
<td>$19.6 million</td>
<td>$24.3 million</td>
</tr>
</tbody>
</table>

- Contra revenue estimates are based on adjusted rates which reflect estimated 6% annual increases in stormwater cost of service and changes in billable units of service
- Contra revenues for future credits represents additional potential revenue loss without changes in current stormwater credit programs or policies
Units of Service - Impact of 2015 Data

- Impervious Area (IA) Impacts
  - Residential IA: Increased by 72 million square feet (sf) or 14.9%
  - Non Residential and Condo IA: Increased by 12 million sf or 1.6%
  - Total IA: Increased by 84 million sf or 6.9%
  - Residential average IA per parcel changed from 1,050 sf to 1,200 sf

- No significant change in Gross Area (GA) square footage

New data set and associated impacts were not reflected in the most recent rate proceeding and will be incorporated in the next filing.
Long-Term Credit Projections – IA Units of Service

Billable Impervious Area Projection

By FY 2027:

- IA Credit: 77 million sf (reduces billable IA)
- More Residential billable IA than Non-Residential
Long-Term Credit Projections – GA Units of Service

By FY 2025:

- GA Credit: 153 million sf (reduces billable GA)
- More Residential billable GA than Non-Residential
Accelerated “Eligible Credits” Analysis
Accelerated “Eligible Credits” Analysis

Credit Eligible Parcels – create uncertainty with respect to stormwater revenues and customer rates

- Current SW Credit Program criteria requires 1-inch of runoff
- Current SW Management Requirement is 1.5-inches
- Credit Eligible Parcels - Currently Not Receiving Credits:
  - Est. Potential Non Surface Discharge Credit = 32.25M sf
  - Est. Potential Surface Discharge Credit = 8.65M sf
- “What If?” Scenario Analysis
  - Assume levels of enrollment under current credit program
  - “Eligible Credits” will apply and receive credit in FY 2020
  - Estimate tipping points and stormwater rates
## Summary - “Eligible Credits” Analysis

### Impact to Billable Units Tipping Point

<table>
<thead>
<tr>
<th></th>
<th>Status Quo</th>
<th>100% Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential GA &gt; Non Res GA in</td>
<td>FY 2025</td>
<td>FY 2023</td>
</tr>
<tr>
<td>Residential IA &gt; Non Res IA in</td>
<td>FY 2027</td>
<td>FY 2023</td>
</tr>
</tbody>
</table>

The results presented above assume no change / adjustments to the current credit program.
## Summary - “Eligible Credits” Analysis

### Impact to Stormwater Rates

<table>
<thead>
<tr>
<th></th>
<th>Status Quo</th>
<th>100% Apply</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FY 2021 Residential Rates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA/GA</td>
<td>$15.853</td>
<td>$16.381</td>
</tr>
<tr>
<td><strong>FY 2021 Non-Residential Rates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>IA (per 500 sf)</td>
<td>$5.403</td>
<td>$5.604</td>
</tr>
<tr>
<td>GA (per 500 sf)</td>
<td>$0.773</td>
<td>$0.789</td>
</tr>
</tbody>
</table>

**Note:** Estimated Rates are provided for discussion purposes only at this time and assume there is no change to the current credit program.
Key Take-Aways

- Continued escalation of stormwater costs and reductions in billable units of service:
  - Puts pressure on rates with compounding effects
  - Increases Contra Revenue impacts
- Within the next 6-9 years, residential customers may bear more of the burden of stormwater related costs with no ability to reduce their fees under current programs
- Credit Eligible Parcels have the potential to accelerate the “tipping point” and put further pressure on revenues and rates

Both short-term and long-term adjustments may be needed to mitigate these impacts.
Potential Credit Program Adjustments
Potential Mitigation Approaches

Short Term

- Align credit criteria with stormwater regulations
  - Regulations require management of 1.5-inch of runoff / Credit Program 1-inch of runoff
  - Aligning policies would reduce potential credit for SMPs which do not meet current regulations

- Specify an enrollment window for applying for credit following development / redevelopment
  - Allow property owners a period of time after construction to apply for credit
  - Discuss the need for a policy to address ownership changes
  - Aim to avoid build-up of “credit liability,” help to manage contra revenue and customer impacts

- Adjust SMIP/GARP program budget
  - Provides immediate rate relief to all customers
  - Reduces some of the shorter impacts resulting from credits
Potential Mitigation Approaches

Long Term

• Holistic credit program updates
• Revisit stormwater rate structure

Longer term adjustments will require further evaluation and deliberation with stakeholders. Effort will take place over the next several years following the next rate proceeding.
Summary

- Aligning stormwater credit criteria with current regulations helps manage “build-up” of potential credit
- Specifying an enrollment period helps manage longer term impacts / reduces uncertainty
- Reducing SMIP/GARP Budget provides immediate relief to rate payers
- Broader changes need to be considered in the future to address potential future equity issues
Next Steps

Today’s Discussion:
• Submit written comments by September 16th (optional) to Vicki

Upcoming Items:
• Developer ROW Incentive
• Maintenance Guide
• Online Technical Submission
• Website Homepage Revamp

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