LOWER ALLEN STORMWATER FEE STUDY

*Presentation to Board of Commissioners*

10/8/18

**Meeting Agenda**

- Introduction
- Stormwater Program
- Credit Policy
- Next Steps
A. Introduction

Scope of Study

1. Parcel Data Evaluation
   • Digitizing Impervious Area
   • ERU Calculation
2. Develop MS4 Program Scope and Budget
3. Fee Analysis
4. Public Meetings
   • 6/11/18
   • 10/8/18
Key MS-4 Permit Requirements

1. Map MS4, including conveyances through private property.
2. Identify and investigate potential pollution sources.
3. Prepare Chesapeake Bay PRP.
4. Implement 6 Minimum Control Measures.
5. Maintain adequate funding to implement the Stormwater Management Program

6 Minimum Control Measures
1. Public Education
2. Public Involvement
3. Illicit Discharge Detection/Elimination
4. Construction Site Runoff Control
5. Post Construction Stormwater Management
6. Pollution Prevention / Good Housekeeping

Chesapeake Bay Pollution Reduction Plan

- Pollutant Removers
  - TSS (10%) ~ 317,000 lb/yr
  - N (5%)
  - P (3%)
- Types of BMPs
  - Convert 10 dry detention basins to bioretention facilities
  - 4 are Twp-owned and 6 are privately owned
B. Stormwater Program

Stormwater Services

• Operations & Maintenance
  – Stormwater/drainage system and BMP maintenance
  – MS4 Permit and water quality compliance
  – Review and inspection services

• Capital
  – Stormwater compliance projects
  – Drainage and watershed projects
## Level of Service

<table>
<thead>
<tr>
<th>Activity</th>
<th>Current</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Sweeping</td>
<td>4-5 times/yr</td>
<td>No change</td>
</tr>
<tr>
<td>MH &amp; Inlet Cleaning</td>
<td>Annual</td>
<td>No change</td>
</tr>
<tr>
<td>MH &amp; Inlet Repair</td>
<td>Reactive repairs</td>
<td>Rehab 19 structures/yr (2.5% system)</td>
</tr>
<tr>
<td></td>
<td>&lt; 5/yr</td>
<td></td>
</tr>
<tr>
<td>Pipe Inspection/</td>
<td>Minimal, reactive</td>
<td>Pole camera screen 110,600 ft (100%) over 2 yrs; then 20%/yr. Full inspect CCTV 5,530 ft/yr (5% system), proactive</td>
</tr>
<tr>
<td>Assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pipe Rehab</td>
<td>Minimal, reactive</td>
<td>1,600 ft/yr (1.5% system) for 5 yrs, then 2,765 ft/yr (2.5% system)</td>
</tr>
<tr>
<td>Flood Abatement</td>
<td>Limited</td>
<td>No change</td>
</tr>
</tbody>
</table>

* - Includes pipes that take public road/stormwater system drainage across private property to outfall. This does NOT include private stormwater networks.
Level of Service – MS4

<table>
<thead>
<tr>
<th>Activity</th>
<th>Current</th>
<th>Target (5-yr avg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>New BMP – Design &amp; Construction</td>
<td>$0</td>
<td>$675,000</td>
</tr>
<tr>
<td>New BMPs – O&amp;M</td>
<td>$0</td>
<td>$13,000</td>
</tr>
<tr>
<td>Other MS4 Permit Work (outfall inspections, public outreach, reporting)</td>
<td>$170,000</td>
<td>$186,000</td>
</tr>
</tbody>
</table>

5-Year Budget

<table>
<thead>
<tr>
<th>Category</th>
<th>2018 Est.</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Sweeping</td>
<td>$23,768</td>
<td>$24,491</td>
<td>$25,215</td>
<td>$25,971</td>
<td>$26,751</td>
<td>$27,553</td>
</tr>
<tr>
<td>Operations &amp; Maintenance</td>
<td>$144,500</td>
<td>$304,724</td>
<td>$331,466</td>
<td>$321,371</td>
<td>$331,012</td>
<td>$340,942</td>
</tr>
<tr>
<td>MS4 Permit Compliance</td>
<td>$87,300</td>
<td>$185,870</td>
<td>$726,649</td>
<td>$1,234,586</td>
<td>$887,170</td>
<td>$890,198</td>
</tr>
<tr>
<td>Fee Program Admin/billing</td>
<td>$0</td>
<td>$85,000</td>
<td>$45,300</td>
<td>$30,609</td>
<td>$26,077</td>
<td>$26,860</td>
</tr>
<tr>
<td>Legacy Transaction Costs</td>
<td>$0</td>
<td>$65,500</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Total</td>
<td>$255,568</td>
<td>$665,074</td>
<td>$1,128,630</td>
<td>$1,612,537</td>
<td>$1,271,010</td>
<td>$1,285,553</td>
</tr>
</tbody>
</table>

1 - 88% of MS4 Permit Compliance costs are associated with new BMPs. 2024 budget to drop based on completion of CBPRP projects.

© Arcadis 2018
5-Year Budget

- Street Cleaning: 1.1%
- Operations & Maintenance: 3.6%
- MS4 Permit Compliance: 2.2%
- Fee Program Admin/billing: 1.1%
- Legacy Transaction Costs: ~0.8%

MS4 Compliance: 65.8%

~$1.2M/yr

Rate Structure

Designed to Meet Township Needs:

Keep it simple
- Accurate, fair, and defensible
- Representative of local conditions

Link to benefits
- Service area
- Program
- Projects

- Residential
  - Flat Fee
- Nonresidential & Multi-Family Residential
  - Impervious Area
- Undeveloped/Natural State
  - Flat 1 ERU
Rate Structure Based on *Impervious Surface Area*

- Stormwater Program Cost
- Impervious Area (Total ERUs)
- Stormwater Fee

**Digitizing**

- Impervious Area digitized includes building, sidewalks and driveways
  - 18% of 5,354 Single-Family Residential
  - 100% of 526 Non-Residential/Multi-family
- Calculated ERU = 3,115 sf of impervious area
- 10 properties have 200+ ERUs.
**Impervious Area**

**Typical Residence Defines the Base Unit**

*Equivalent Residential Unit (ERU)*

- Total area ~20,000 ft²
- Impervious Area = 3,115 ft²

- House Area
- Other Impervious Area

**Calculated ERU = 3,115 SF**

Single Family Residential

**Impervious Area**

**Commercial Properties**

*Billed as Multiples of the Base Unit*

- Total area ~60,000 ft²
- Impervious Area = 21,500 ft²

- Building Area
- Parking
- Other Impervious Area

**Calculation of ERUs**

\[
\frac{21,500 \text{ sf}}{3,115 \text{ sf/ERU}} = 6.90 = 7 \text{ ERUs}
\]
ERUs - Commercial

- 526 Parcels
- # ERUs = IA / 3,115 SF
- 12,458 Gross ERUs
- Assume 10% loss to credit program
- **11,212 Net ERUs**

<table>
<thead>
<tr>
<th>OWNER</th>
<th>Total IA (SF)</th>
<th>ERUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA INDUSTRIAL SCHOOL</td>
<td>2,688,101</td>
<td>863</td>
</tr>
<tr>
<td>RR CC LIMITED PARTNERSHIP</td>
<td>1,818,727</td>
<td>584</td>
</tr>
<tr>
<td>2850 APPLETON ASSOCIATES INC</td>
<td>905,225</td>
<td>291</td>
</tr>
<tr>
<td>EXETER 4501 WESTPORT LLC</td>
<td>755,534</td>
<td>243</td>
</tr>
<tr>
<td>SKYPOLE STEEL LLC</td>
<td>745,586</td>
<td>239</td>
</tr>
<tr>
<td>WEST SHORE AREA SCHOOL</td>
<td>694,297</td>
<td>223</td>
</tr>
<tr>
<td>ASBURY ATLANTIC INC</td>
<td>638,996</td>
<td>205</td>
</tr>
<tr>
<td>CHRISTIAN LIFE ASSEMBLY OF GD</td>
<td>636,025</td>
<td>204</td>
</tr>
<tr>
<td>YETTER COURT ENTERPRISES LLC</td>
<td>606,022</td>
<td>195</td>
</tr>
<tr>
<td>ARMERACH L P</td>
<td>536,864</td>
<td>172</td>
</tr>
<tr>
<td>ASBURY ATLANTIC INC</td>
<td>493,803</td>
<td>159</td>
</tr>
<tr>
<td>WEIS MARKET INCORPORATED</td>
<td>460,753</td>
<td>148</td>
</tr>
<tr>
<td>LISBURN DEVOO I LP</td>
<td>460,149</td>
<td>148</td>
</tr>
<tr>
<td>LFCC, INCORPORATED</td>
<td>453,451</td>
<td>146</td>
</tr>
<tr>
<td>PA BUSINESS CENTER LP</td>
<td>419,836</td>
<td>135</td>
</tr>
<tr>
<td>ASBURY ATLANTIC INC</td>
<td>416,617</td>
<td>134</td>
</tr>
<tr>
<td>PENNSYLVANIA POWER &amp; LIGHT</td>
<td>413,636</td>
<td>133</td>
</tr>
<tr>
<td>ROMAN CATHOLIC DIOCESE OF TR</td>
<td>411,390</td>
<td>132</td>
</tr>
<tr>
<td>SMITH LAND &amp; IMPROVEMENT CORP</td>
<td>390,201</td>
<td>125</td>
</tr>
<tr>
<td>LOWER ALLEN BUS CNTR LP</td>
<td>381,447</td>
<td>122</td>
</tr>
<tr>
<td>WARRELL CORPORATION</td>
<td>377,907</td>
<td>121</td>
</tr>
<tr>
<td>VITRAN PENNSYLVANIA LLC</td>
<td>351,689</td>
<td>115</td>
</tr>
<tr>
<td>AMST INVESTORS</td>
<td>349,944</td>
<td>112</td>
</tr>
<tr>
<td>ALSTORES REALTY CORPORATION</td>
<td>337,152</td>
<td>108</td>
</tr>
<tr>
<td>WEST SHORE AREA SCHOOL</td>
<td>337,092</td>
<td>108</td>
</tr>
</tbody>
</table>

PennDOT and PA Turnpike are not included in table.

ERUs – Residential

- **Flat rate** fee structure for all parcels was selected because:
  - Easy to administer, requiring minimal cost and effort to implement and oversee
  - Fewest anticipated appeals
  - Individually measured impervious area and custom invoices would require significant money and time to implement
  - Residential customers pay a flat rate for wastewater and trash service. Stormwater fee will be a consistent approach.
  - Easy to explain
Residential ERUs

- 5,354 Parcels = 5,354 Gross ERUs
- Assume 5% of Gross ERUs to be lost to a credit program
- 5,086 Net ERUs

ERUs – Undeveloped

- ~287 Parcels Undeveloped or Under Construction
- Fee is 1 ERU flat charge since all properties produce some runoff and simpler and less effort to administer than a fee structure proportionate to IA and Total Area.
- 287 ERUs
Total ERUs Estimate

<table>
<thead>
<tr>
<th>Category</th>
<th># ERUs</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFR</td>
<td>5,354</td>
</tr>
<tr>
<td>SFR Credits</td>
<td>-268 [5%]</td>
</tr>
<tr>
<td>Non-Residential/ Multi-Family</td>
<td>12,458</td>
</tr>
<tr>
<td>NR/MF Credits</td>
<td>-1,246 [10%]</td>
</tr>
<tr>
<td>Undeveloped</td>
<td>287</td>
</tr>
<tr>
<td>Total</td>
<td>16,585</td>
</tr>
</tbody>
</table>

Non-Residential/ Multi-Family Net ERUs (68%)
SFR (31%)
Undeveloped/In Construction (2%)

Rate and Cash Flow Projection

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERU Rate Change</td>
<td>N/A</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>ERU Rate ($/sqft)</td>
<td>19.00</td>
<td>19.00</td>
<td>19.00</td>
<td>19.00</td>
<td>19.00</td>
</tr>
<tr>
<td>Net ERUs</td>
<td>16,585</td>
<td>16,585</td>
<td>16,585</td>
<td>16,585</td>
<td>16,585</td>
</tr>
<tr>
<td>Total Billed Revenue ($)</td>
<td>1,260,460</td>
<td>1,260,460</td>
<td>1,260,460</td>
<td>1,260,460</td>
<td>1,260,460</td>
</tr>
<tr>
<td>Revenue Collected ($)</td>
<td>1,226,175</td>
<td>1,226,175</td>
<td>1,226,175</td>
<td>1,226,175</td>
<td>1,226,175</td>
</tr>
<tr>
<td>Budgeted Expenses ($)</td>
<td>665,074</td>
<td>1,126,630</td>
<td>1,612,537</td>
<td>1,271,010</td>
<td>1,285,553</td>
</tr>
<tr>
<td>Net Revenue ($)</td>
<td>561,101</td>
<td>97,546</td>
<td>(386,362)</td>
<td>(44,834)</td>
<td>(59,378)</td>
</tr>
<tr>
<td>Year End Cash Balance ($)</td>
<td>561,101</td>
<td>658,647</td>
<td>272,285</td>
<td>227,451</td>
<td>168,073</td>
</tr>
<tr>
<td>Cash Balance (% of Annual Budget)</td>
<td>84%</td>
<td>58%</td>
<td>17%</td>
<td>18%</td>
<td>13%</td>
</tr>
</tbody>
</table>
Stormwater Fee

Quarterly fees for various properties could be:

<table>
<thead>
<tr>
<th>ERUs</th>
<th>Residential</th>
<th>Gas Station</th>
<th>Church</th>
<th>Box Store</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$19</td>
<td>$114</td>
<td>$760</td>
<td>$2,850</td>
</tr>
</tbody>
</table>

Residential Stormwater Utility Charges for Other Municipalities in Pennsylvania

Chambersburg - $12/quarter (revisiting in 2019)
Hampden $13.25/quarter
Lancaster - $19.35/quarter for 2,001-3,000 SF IA (tiered on IA)*
Meadville - $22.50/quarter
Highspire Borough - $22.50/quarter
Mount Lebanon - $24/quarter
Radnor - $7.25 to $29/quarter (tiered on total area)
Derry Twp – $19.50/quarter for 3,000-4,999 SF of IA (tiered on IA)**
Williamsport – Exploring $14.10/quarter
Swatara Twp - $15/quarter (flat)
Lower Allen - $19.00/quarter (flat)

* - For properties with greater than 3,000 SF of impervious area charge is proportional to impervious area.
** - 500-2,999 SF is $9.75/qtr.
C. Credit Policy

• Encourage private development of Best Management Practices that will help meet MS4 permit requirements
• Account for varying levels of onsite stormwater management
• Capped at an annual maximum of 50%
• O&M agreements and periodic inspection reports required
• No application fee
• Details and policy to be developed.
• Will monitor and adjust policy over time
D. Next Steps

Next Steps

1. Develop Credit & Appeals Policy
2. Deliver GIS Database to LAT for use in billing setup
3. Pass Rate Resolution/Ordinance
4. Update billing system and issue invoices
Questions?

Rebecca Davis, MS4 Coordinator
rdavis@latwp.org
717-975-7575 ext. 1010