

**Project Name: Stormwater Utility Fund**

**Project Number: C-97166-2020**

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**Work Completed to Date (October 2019 – October 2020):**

**Road Reconstruction**

- The concrete curbs under the Road Reconstruction Project are nearly completed.
- Storm Sewers were installed and/or will be completed in the next few weeks on:
  - Arden Road (Roof Drain Collection Line to Mitigate Icing Issue)
  - Firwood Drive (Drainage Improvements)
  - Hemlock Street (Storm Sewer Extension)
  - Rocklynn Place (Roof Drain Collection Line to Mitigate Icing Issue)
  - Sandrae Drive (Roof Drain Collection Line to Mitigate Icing Issue)
  - **Total of 3 ice spots eliminated through road reconstruction work**

**Municipal Separate Storm Sewer System (MS4 Permit) - Federal Permit Required for the discharge of**

**Municipal storm sewers**

- Construction of the Bird Park Stream Restoration project
- Continued to adhere to the requirements of the MS4 program, including compliance with the 6 Minimum Control Measures (MCM)
- Continued the design of the proposed stream restoration projects as part of the Total Maximum Daily Load (TMDL) and Pollution Reduction Plan (PRP) requirements

**Storm Sewer CCTV**

- Various Storm Sewers throughout the Municipality are in the process of being televised to determine the connectivity of the sewers and their condition. Necessary repairs are being completed as they are discovered.

**Storm Sewer Projects**

- Moreland Drive Storm Sewer Project
- Shady Drive East Storm Sewer Extension (Roof Drain Collection Line to Mitigate Icing Issue)
- Castle Shannon Blvd. Storm Sewer Extension (Roof Drain Collection Line to Mitigate Icing Issue)
- Elatan Drive Storm Sewer Extension (Roof Drain Collection Line to Mitigate Icing Issue)
- **Total of 3 ice spots eliminated through storm sewer projects**

**Remaining Tasks for 2020:**

**Ella Chalmers Storm Sewer Extensions Project** – Construction of the storm sewer extensions to begin in early October 2020.

**Public Works Yard Culvert Repairs** – During the due diligence investigation for the new Public Works Facility, the storm sewer which runs through the Public Works Yard was evaluated. Continual evaluations were performed following damage caused by large storm events. The pipe is a 96” Corrugated Metal Pipe that varies in depth from 4’ to 30’. Several priority repairs were completed; however, it is proposed that 460 L.F. of invert lining be completed as well as 55 L.F. of full diameter lining. Additional repairs are recommended following this work to repair non-priority issues. A trash rack system is proposed for the start of the culvert to protect the culvert from large debris which has caused issues in the past. This project is currently out for bid and includes the trash rack and future non-priority repairs as additional alternates for consideration.

### **2021 Proposed Capital Projects:**

**Lakemont Drive Storm Sewer Extension Project** – Stormwater from the properties along Lakemont Drive travels through the rear yards of the residents and causes flooding problems downstream during large storm events due to the negative sloping driveways of the residents and lack of storm sewer infrastructure for residents to connect into. Storm sewer infrastructure will need to be extended up Lakemont Drive at a depth that will allow residents to convey stormwater away from the rear yards and into the proposed storm sewer. Lakemont Drive is scheduled to be re-paved in 2021 and the project should be completed prior to paving commencing.

**Firwood Drive Storm Structure Addition Project** – Stormwater that collects in the rear yards between Firwood Drive and Lakemont Drive causes property damage during large storm events due to a lack of storm sewer structures. An existing storm sewer exists within the rear yards but there are no storm catch basins to collect surface runoff. Storm catch basins will need to be added into the rear yards and connected into the existing storm sewer to capture the surface runoff and provide relief to downstream residents. In addition, an easement will be required from the resident to allow the project to proceed.

**Woodhaven / Forest Glen Storm Sewer Installation Project** – Phase II of the Forest Glen/Woodhaven project includes extending the storm sewer system up Woodhaven Drive to capture additional flows from the upstream areas. This project was bid as an Alternate in Phase I of the project, but not awarded.

**Banksville Road Storm and Sanitary Sewer Re-Route** – There is a sanitary sewer that currently runs under the Fire & Patio Place Store on Banksville Road. During some due diligence work to design a re-route, it was discovered that a 60” storm sewer runs under multiple buildings along Banksville Road. We are currently completing due diligence work to determine the future capital costs of re-routing the storm and sanitary sewers to be completed at a future date to be determined.

**Public Works Yard Culvert Repairs** – Continual evaluations will be performed of the culvert as storms and age continue to cause the need for additional repair. The pipe is a 96” Corrugated Metal Pipe that varies in depth from 4’ to 30’. Future gunite repairs currently identified include 60 L.F. of invert repair as well as 30 L.F. of full diameter repair. If the trash rack system is not installed during the 2020 construction then it would be expected to be bid for construction again in 2021 to protect the culvert from large debris which has caused issues in the past.

**Pollution Reduction Plan (PRP) Projects** – Continue with the design of the proposed stream restoration projects as part of the Total Maximum Daily Load (TMDL) and Pollution Reduction Plan (PRP) requirements of the MS4 Permit, specifically the stream restoration project to the stream located at the end of Thornwood Drive.

### Financial Summary

The following is the approximate Financial Summary for the Projects Complete:

Project Name	Cost
<b>Reconstruction</b>	
2012 Curbs	\$ 377,179.50
2012 Storm Extension	\$ 96,140.00
2013 Curbs	\$ 432,072.50
2013 Storm Extension	\$ 232,196.36
2014 Curbs	\$ 420,749.00
2014 Storm Extension	\$ 190,806.00
2015 Curbs	\$ 546,314.05
2015 Storm Extension	\$ 117,019.24
2016 Curbs	\$ 487,823.60
2016 Storm Extension	\$ 238,541.80
2017 Curbs	\$ 515,716.54
2017 Storm Extension	\$ 180,948.96
2018 Curbs	\$ 540,255.00
2018 Storm Extension	\$ 140,869.60
2019 Curbs	\$ 523,605.60
2019 Storm Extension	\$ 222,273.50
2020 Curbs - Not Finalized Yet	\$ 577,500.00
2020 Storm Extension - Not Finalized Yet	\$ 129,000.00
<b>Sub-Total Reconstruction</b>	<b>\$ 5,969,011.25</b>

<b>2012 Storm Sewer Projects</b>	
Serpentine Storm Sewer	\$ 61,520.08
Lindendale Storm Sewer	\$ 35,640.01
Adeline Storm Sewer	\$ 32,854.10
Sunrise Storm Sewer	\$ 8,060.00
Elatan Storm Sewer	\$ 57,414.06
Abbeyville Storm Sewer	\$ 9,031.43
Klett Storm Sewer	\$ 2,456.19
Broadmoor Storm Sewer	\$ 3,141.85
Crystal Drive Storm Sewer	\$ 2,418.57
Cochran & Cedar Inlets	\$ 12,394.90
Oak Park Place Inlets	\$ 5,705.10
Scrubgrass Road Stream Rehabilitation	\$ 162,065.21
Storm Sewer CCTV	\$ 2,464.02
<b>Sub-Total 2012 Storm Projects</b>	<b>\$ 395,165.52</b>



<b>2013 Storm Sewer Projects</b>	
<b>*Bid in 2013, construction in 2014</b>	
Jefferson Drive Storm Sewer - Emergency	\$ 33,217.83
Kurt Drive Storm Sewer	\$ 10,841.46
Elatan Drive Storm Sewer	\$ 20,976.33
Castle Shannon Storm Sewer	\$ 38,917.87
Morrison Inlet Installation	\$ 6,900.00
Ice Spots (Piper, Cochran, Park Entrance, Sandrae, Lindendale)	\$ 127,279.02
Academy Avenue Storm Sewer	\$ 87,359.59
Moreland Hillside Failure	\$ 9,435.76
Sleepy Hollow	\$ 179,714.41
Washington-Navahoe Storm Sewer	\$ 56,971.80
PA DOT Drainage Improvements	\$ 30,000.00
<b>Sub-Total 2013 Storm Projects</b>	<b>\$ 601,614.07</b>

<b>2014/2015 Storm Sewer Projects</b>	
<b>*Projects that were designed in 2015, constructed in 2016.</b>	
Scrubgrass Retaining Wall Rehabilitation	\$ 12,405.00
Mapleton Sanitary and Storm Improvements	\$ 536,120.00
Lindendale Drive Retaining Wall *	\$ 135,585.50
Storm Sewer CCTV	\$ 30,000.00
Arden Drive Storm Sewer Extension	\$ 34,000.00
Parkside Drive Inlet Replacement	\$ 12,560.00
Roycroft Swale Maintenance	\$ 1,350.00
Washington Road Icing Issue	\$ 10,120.00
Orchard Drive Pipe Burst	\$ 69,500.00
Beverly Road Storm Sewer	\$ 79,390.00
<b>Sub-Total 2014/2015 Storm Projects</b>	<b>\$ 921,030.50</b>

<b>2016 Storm Sewer Projects</b>	
Longuevue/Woodhaven Storm Sewer	\$ 758,787.31
Roycroft/Mt. Lebanon Boulevard Storm Sewer	\$ 110,933.47
Orchard Drive Storm Sewer Re-route Project	\$ 161,778.00
Public Works Culvert Repair	\$ 59,617.65
Storm Sewer CCTV	\$ 15,694.43
<b>Sub-Total 2016 Storm Projects</b>	<b>\$ 1,106,810.86</b>

<b>2017 Storm Sewer Projects</b>	
Elm Spring/Scrubgrass Rd. Emergency Repair	\$ 26,988.80
Jefferson Drive Emergency Repair	\$ 5,386.39
Storm Sewer CCTV	\$ 7,325.70
<b>Sub-Total 2017 Storm Projects</b>	<b>\$ 39,700.89</b>

<b>2018 Storm Sewer Projects</b>	
Crystal/Milbeth Storm Sewer	\$ 98,951.00
DPW Yard Culvert Emergency Repairs	\$ 169,668.90
Elm Spring/Scrubgrass Culvert Repair	\$ 37,966.75
Craigview Drive Storm Sewer Extension	\$ 32,058.60
Vee Lynn Drive Storm Sewer Extension	\$ 15,994.55
Storm Sewer Point Repairs	\$ 41,248.46
Storm Sewer CCTV	\$ 26,807.78
<b>Sub-Total 2018 Storm Projects</b>	<b>\$ 422,696.04</b>

<b>2019 Storm Sewer Projects</b>	
Golf Course Swale	\$ 135,867.82
DPW Yard Culvert Emergency Repairs	\$ 197,223.35
Vallevista Avenue Storm Sewer Connection	\$ 19,196.65
Storm Sewer Point Repairs	\$ 20,179.40
Storm Sewer CCTV	\$ 20,254.31
<b>Sub-Total 2019 Storm Projects</b>	<b>\$ 392,721.53</b>

<b>2020 Storm Sewer Projects</b>	
<b>*Projects that were designed/bid in 2019 and constructed in 2020</b>	
Shady Drive East Storm Sewer Extension	\$ 12,713.80
Castle Shannon Blvd. Storm Sewer Extension	\$ 22,051.85
Elatan Drive Storm Sewer Extension	\$ 21,840.00
Moreland Drive Storm Sewer Repair *	\$ 278,224.00
Ella Chalmers Storm Sewer Extensions	\$ 125,000.00
Bird Park Stream Restoration	\$ 148,230.00
DPW Culvert Repairs (Currently being bid)	\$ 350,000.00
Storm Sewer CCTV	\$ 15,589.20
<b>Sub-Total 2020 Storm Projects</b>	<b>\$ 973,648.85</b>

<b>Public Works Projects</b>
Clean and Maintain Inlets & Outfalls
Inlet Repairs
Repair damaged Storm Sewer
Repair Vane Grates
Installation of underdrain around the swimming pool