

### Problem Site Maintenance (PSM)



#### Frequent Obstructions

- Chronic Dumping
- Blocked Ditch Flow
- Erosion & Sediment
- Choke Points

#### Introduction and Purpose

Over the years, the Township has identified areas where the free flow of stormwater is frequently impaired. These areas are known critical areas that must remain free of debris and sediment in order to minimize localized and long-term flooding.

#### Scope

These procedures are guidelines that identify each problem area, what the issues are, and what special maintenance is needed. The problem site are located on the attached map.

#### Identification of Problem Sites & Responsibilities

The areas below are identified as problem sites within the Township. The Director of Public Works shall maintain a log of inspections and maintenance activities throughout the year. The Director will add sites as additional problem areas are identified. The following sites are currently identified on the log sheet entitled "Trouble Areas to Check and Clean":

- Pequannock Avenue Flood Gates
- Lyman Avenue Trash Rack
- Scotts Pipe, Gate and across 23
- Argyle Pipe and Gate
- Jefferson Avenue Ditch
- Henderson Ditch
- Behind Town Hall
- Half Moon Ditch in Lower Village
- Beaver Brook Ditch
- River Road Ditch
- Five Pipes
- West Parkway by Lucy

### Maintenance And Inspection

- All PSM locations are inspected, at a minimum, monthly and after any major storm event.
- Drainage ditches are inspected for proper cross-section, flow line, and debris accumulations. Ditches that need cleaning but are not creating any immediate problems are noted and are scheduled for cleaning when resources become available.
- Check for litter, rubbish, branches, downed trees, debris, sediment accumulation and localized erosion.
- Minor reclamation is to be conducted immediately. Remediation not immediately performed shall be scheduled and prioritized by the Director of Public Works as needed. Remediation of these areas shall be considered a high priority and resolved ASAP.

### Additional Information

#### **Pequannock Avenue Flood Gates**

Two flood gates are located near the Pompton River where Shady Brook empties into the river. The gates are side-by-side. They prevent moderate flood waters from back-flowing into the lower Pequannock neighborhood. In order for the gates to function properly, the scour area on either side of the pipe (gate) must be free of all sediment and debris throughout a storm event. Inspections are monthly and after any major storm event. Maintenance is according to the SOP for outfalls except the requisite maintenance is required if sediment is within one foot (1') of the gate invert.

#### **Lyman Avenue Trash Rack**

The Lyman trash rack prevents rubbish, branches and large floatable items from entering the large pipe which evacuates stormwater from the localized neighborhood into the Shady Brook. Various debris blocks the full flow of stormwater causing flash flooding and/or prohibits the evacuation of flood waters. This item is subject to all inspection and maintenance items located in the Drainage SOP.

#### **Scotts Pipe Gate and Argyle Pipe Gate**

These two (2) gates are also known as the Village Flood Gates. These gates are critical to the protection of the Village section by allowing stormwater to drain from the village while protecting the Village when rivers reach moderate to major flood stages. In order for the gates to function properly, the scour area on either side of the pipe (gate) must be free of all sediment and debris throughout a storm event. Inspections are monthly and after any major storm event. Maintenance is according to the SOP for outfalls except the requisite maintenance is required if sediment is within one foot (1') of the gate invert.

#### **Jefferson Avenue Ditch**

The Jefferson Avenue ditch is an open channel that conveys stormwater from the northern Pequannock section of town to five pipes ultimately to the Pompton River. The Township relies heavily on open channel flow to evacuate stormwater during major storm events. These channels must remain free of obstructions and flow freely. Maintenance and inspection is in accordance with the Ditch Maintenance SOP.

### Additional Information (Cont.)

#### **Henderson Ditch**

The Henderson ditch is an open channel that conveys stormwater from the southwestern section of Pequannock to five pipes and ultimately to the Pompton River. The Township relies heavily on open channel flow to evacuate stormwater during major storm events. These channels must remain free of obstructions and flow freely. Maintenance and inspection is in accordance with the Ditch Maintenance SOP.

#### **Ditch Behind Town Hall**

The ditch behind town hall is an open channel that conveys stormwater from the Pompton Plains section of town under the railroad line and ultimately discharges into Meyers Brook. The Township relies heavily on open channel flow to evacuate stormwater during major storm events. These channels must remain free of obstructions and flow freely. Maintenance and inspection is in accordance with the Ditch Maintenance SOP.

#### **Half Moon Ditch in Lower Village**

The ditch in the Lower Village is commonly referred to as the Half Moon Ditch. This ditch is an open channel that conveys stormwater between Meyers Brook and Spring Brook. This area is also known as Twin Brooks Park. This ditch is environmentally sensitive, therefore maintenance is limited to removing rubbish and downed trees. The ditch balances the waters of Meyers and Spring Brooks while the Village area is protected by the flood gates. These channels must remain free of obstructions and flow freely. Maintenance and inspection is in accordance with the Ditch Maintenance SOP with the exception of the removal of sedimentation.

#### **Beaver Brook Ditch**

The Beaver Brook Ditch is also known as the East Ditch. This ditch is environmentally sensitive, therefore maintenance is limited to removing rubbish and downed trees. The ditch is a main conveyer of stormwater and streamflow from the northwestern portions of Pompton Plains. The ditch flows southerly into the Borough of Lincoln Park where it is maintained by the Borough. These channels must remain free of obstructions and flow freely. Portions of the East Ditch are the subject of a State grant for desilting to lower the channel bottom to original design depth. Maintenance and inspection is in accordance with the Ditch Maintenance SOP with the exception of the removal of sedimentation.

#### **River Road Ditch**

The River Road Ditch is an open channel that conveys stormwater from Harrison Avenue section of town, across the existing railroad line and ultimately into the Pequannock River. The Township relies heavily on open channel flow to evacuate stormwater during major storm events. These channels must remain free of obstructions and flow freely. Maintenance and inspection is in accordance with the Ditch Maintenance SOP.

Additional  
Information  
(Cont.)

### **Five Pipes**

The drainage structure commonly known as five pipes is located at the confluence of the Jefferson and Henderson Ditches. The “five pipes” conveys drainage across the 104” Newark watershed main pipeline. The Newark pipeline forms a dam restricting flow from the western section of Pequannock to the eastern section where it discharges into the Shady Brook. These pipe are subject to blockage from debris and rubbish. They frequently fill with silt and must be cleared a minimum of once a year. Additional cleaning is required during seasons of multiple major storm events. This crossing is inspected after any measurable storm event. Maintenance includes almost all of the drainage SOP’s including outfall, ditch and pipe protocols.

### **West Parkway by Lucy**

This is the culvert crossing West Parkway just north of Lucy Court. The associated ditch and pipe convey stormwater from the lower central section of Pompton Plains. This pipe and ditch must function properly to prevent flash flooding within the multiple streets and dwellings located thereabout. The Township relies heavily on open channel flow to evacuate stormwater during major storm events. These channels must remain free of obstructions and flow freely. Maintenance and inspection is in accordance with the Ditch Maintenance SOP.