

# THE CORPORATION OF THE VILLAGE OF WARFIELD

**POLICY: #5435**

## **POLICY TITLE: Sanitary Sewer Operations**

### **PURPOSE:**

This policy is to provide the Village of Warfield's procedures for maintaining its sanitary sewer collection system, responding to complaints and emergency situations, and to provide maintenance service to Village sewer infrastructure on a daily, weekly, monthly and annual basis. These procedures are necessary to prevent the Village infrastructure from falling into disrepair or appearing un-serviced as well as sewer backups into homes, businesses, and the natural environment. Maintenance also protects and extends the life of the Village's sanitary sewer collection and street systems. The Village will provide such maintenance in a safe and cost effective manner, keeping in mind safety, budget, personnel, and environmental concerns. The Village will use Village employees, equipment, and/or private contractors to conduct this maintenance and repair.

### **POLICY AND PROCEDURES:**

#### **Routine Maintenance and Inspection**

##### **Sanitary Sewer Lines –**

1. **Scope of Responsibility** - The Village will maintain and repair the Village's sanitary sewer mains. Private property owners are responsible for the maintenance and repair of their private service from the Village's main line, including the connection at the main, to the property owner's building. This includes keeping the service free of obstructions such as debris, roots, and grease.
2. **Schedule** – It is the goal of the Village to clean every Village sanitary sewer main twelve inches and under every three years for clay pipe and every five years for concrete and PVC pipe depending upon the history of the pipe. Mains larger than twelve inches will be visually inspected (See item 5).
3. **Problem Area** – This is defined as an area that has had a sewer backup, blockage or a known problem such as grease accumulation or shallow slope. It is the goal that these areas will be cleaned twice a year for the first year. If there are no further problems, it will be cleaned once the second year and then moved to a regular schedule the third year.
4. **Cleaning Equipment** – Mains will be cleaned with a combination jet/vac machine. This machine cleans the main with high velocity Village water pressure. Any accumulation of debris will be vacuumed out of the manhole into a debris tank on the truck.
5. **Visual Inspection** –Larger lines will be visually inspected by employees. This is done by looking down the manholes to determine if there is proper flow and making note of any needed corrections.

## **Sanitary Sewer Lift Stations**

1. Schedule – The Village’s goal is to maintain lift stations annually using specific maintenance that is reasonable and recommended by equipment suppliers and manufacturers. That maintenance is reflected in the checklists developed for each lift station. Rounds will be performed twice per week. Pump hours will be recorded and site visual inspections will also be performed.
2. The goal is that all lift stations will be inspected every second year by a private pump company.
3. Electrical Components – It is the goal of the Village to annually inspect and maintain the electrical components of the lift stations.

## **Emergency Response**

1. Definition – An emergency response occurs in response to a call from citizens, fellow employees, or an alarm that indicates there is a possible problem in the sanitary sewer system.
2. Response – It is the Village of Warfield’s policy to respond to sewer back-ups and lift station problems or failures, or other real or potential system problems or failures 24 hours a day, 365 days a year. Normal business hours are 7 a.m. to 3:30 p.m. Monday thru Friday, excluding holidays. During this time, all calls and reported problems will be dispatched by the Utilities Supervisor or his/her designee. After hours and on weekends, calls received by the Regional Fire Department will be dispatched to an on call cell phone which is carried by a Public Works Department employee.

After receiving notice of a possible problem, the employee will respond and determine if there is problem in the Village’s system. If there is, he or she will remedy it based on accepted procedures. If necessary, the Village employee will obtain assistance from other Village employees or outside contractors. If the problem is in the private service line the property owner will be notified and it is their responsibility to call a licensed plumber or drain cleaning service to correct the problem.

All sewer overflows or spills shall be cleaned up by the persons responsible in accordance with Appendix A of this policy.

## **Documentation and Reporting**

1. The Village will document all of its inspection, maintenance, and emergency responses for its sanitary sewer system. The Village will also document any circumstances where an incident occurs that limits its ability to comply with this policy. These records will be kept in accordance with the Village’s record retention schedule.
2. In accordance with the Spill Reporting Regulation of the Environmental Management Act, all sewer spills estimated to be greater than 200 litres shall be

reported in accordance with the excerpt from the regulation quoted in Appendix B.

## **Training**

1. The Village will provide training on a regular basis to employees that will be involved in emergency response and routine maintenance of the Village's sanitary sewer collection system. Specific training will be held regarding procedures and proper use of equipment.

## **Weather Conditions**

1. Sewer maintenance operations will be conducted only when weather conditions do not endanger the safety of Village employees and equipment. Factors that may delay sewer maintenance operations include; severe cold, flooding, rain, snow, and wind.

## **Responsibility**

It is the responsibility of The Village of Warfield Public Works Department to maintain and repair the sanitary sewer collection system. It is also the responsibility of the Village of Warfield's Public Works Department to respond to sewer back-ups and lift station problems or failures, or other real or potential system problems or failures 24 hours a day, 365 days a year.

Initially approved at meeting #15-10 of June 2, 2010  
Scheduled to be reviewed on June 1, 2011  
Next scheduled to be reviewed on September 14, 2012

## **Appendix A – Spill Clean Up Procedures.**

### **Standard Procedures for Cleaning Up Domestic Wastewater Spills Outdoors**

**The following are recommended procedures for cleaning up untreated or inadequately treated sewage, spilled to the ground surface.**

#### **1. *In all conditions:***

- A. If the area in which the spill occurred is accessible to the public or domestic pets, the contaminated area must be clearly marked or cordoned off to restrict access.
- B. Protective clothing (at a minimum, rubber or latex gloves and rubber boots) should be worn when cleaning up a sewage spill. (Dispose of gloves and wash rubber boots when leaving spill site). Keep children and interested bystanders away from cleanup activities.
- C. Please note that hydrated lime is a caustic material and can be dangerous to handle and apply. Lime should only be used or applied by people experienced in using this material.
- D. Do not mix cleaning / disinfecting products or chemicals. Cleaning products can react with one another to produce toxic vapour or liquid substances.

#### **2. *In non-freezing conditions, when sewage is a mixture of liquid and solid material, the following steps should be taken:***

- A. If the spilled material can't be recovered using hand tools, a commercial vacuum / pump truck should be called to remove all visible liquid and solid material.
- B. When the area is visibly clean, either a chlorine / water solution (using Clorox or an equal bleach) or hydrated lime should be applied to the spill area to disinfect. To make a 5% chlorine solution, add 3/4 cup Clorox bleach to one (1) gallon of water. You can verify the chlorine concentration by using test paper available at food supply warehouses or chemical supply companies. **ONLY USE BLEACH THAT HAS "SANITIZES" OR "KILLS GERMS" ON THE LABEL.**

If the spill occurred in a heavily populated area and odour may be an issue or within 100 feet of surface water, hydrated lime should be applied to the area in place of chlorine bleach. Enough hydrated lime should be applied to raise the pH to at least 12. By raising the pH to 12 for at least 1 hour, the area will be disinfected. You can test the pH by using litmus paper obtained at a chemical supply facility. Because lime is a caustic material, access to the area treated with lime must be restricted during the disinfection period.

- C. After the spill area has been cleansed (24 hours after the chlorine solution or hydrated lime has been applied), the barriers may be removed and access to the area restored.

#### **3. *In freezing or frozen conditions.***

- A. An attempt should be made to clean up the spill before it becomes completely frozen.

B. If possible, the frozen sewage should be removed down to the natural ground surface (or at least one inch below the spilled sewage if on thicker ice) and the recovered material disposed of properly. This could require that approval be obtained from the local government for disposal in a permitted landfill. An acceptable alternative solution is to stock pile the frozen sewage in an approved lined containment area until conditions are more favourable for transport and disposal. If the material thaws, the liquid must be properly handled and disposed of at a permitted wastewater treatment and disposal facility. Keep in mind that frozen and / or thawed sewage may still contain active, harmful bacteria, cysts and viruses.

C. When the area is visibly clean, either a chlorine / water solution (using Clorox or equal bleach) or hydrated lime should be spread across the spill area to disinfect. You can verify the chlorine concentration by using test paper available at food supply warehouses or chemical supply companies.

D. If the spill occurred in a heavily populated area and odour may be an issue or within 100 feet of surface water, hydrated lime should be applied to the spill area in place of chlorine bleach. The hydrated lime will raise the pH to 12, which will disinfect the area. By raising the pH to 12 for at least 1 hour, the area will be disinfected. You can test the pH by using litmus paper obtained at a chemical supply facility. Because lime is a caustic material, access to the area treated with lime must be restricted during the disinfection period.

E. When the spill area has been cleansed (24 hours after the chlorine solution or hydrate lime has been spread), the barriers can be removed and access to the area restored.

## **Appendix B – Excerpt from the Spill Reporting Regulation<sup>1</sup>**

### **Report**

**2** (1) For the purposes of section 79 (5) of the Act, a person who had possession, charge or control of a substance immediately before its spill shall immediately report the spill to PEP by telephoning 1-800-663-3456.

(2) Where it appears to a person observing a spill that a report under subsection (1) has not been made, he or she shall make the report referred to in this section.

(3) A report under this section shall include, to the extent practical,

- (a) the reporting person's name and telephone number,
- (b) the name and telephone number of the person who caused the spill,
- (c) the location and time of the spill,
- (d) the type and quantity of the substance spilled,
- (e) the cause and effect of the spill,
- (f) details of action taken or proposed to comply with section 3,
- (g) a description of the spill location and of the area surrounding the spill,
- (h) the details of further action contemplated or required,
- (i) the names of agencies on the scene, and
- (j) the names of other persons or agencies advised concerning the spill.

### **Further action**

**3** Where a spill occurs, the person who immediately before the spill had possession, charge or control of the spilled substance shall take all reasonable and practical action, having due regard for the safety of the public and of himself or herself, to stop, contain and minimize the effects of the spill.

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<sup>1</sup> [http://www.bclaws.ca/Recon/document/freeside/EnvironmentalManagementAct/SBC\\_Regulations.xml](http://www.bclaws.ca/Recon/document/freeside/EnvironmentalManagementAct/SBC_Regulations.xml)