

# **Standard Operating Guideline - Sewer Backup Reduction Program**

Standard Operating Guideline (SOG)

Title: **SEWER BACKUP REDUCTION PROGRAM**

District Name: \_\_\_\_\_

Date Prepared: \_\_\_\_\_ Date Revised: \_\_\_\_\_

## **OBJECTIVE:**

This Standard Operating Guideline (SOG) is intended to provide guidance for JPIA Members that operate and maintain wastewater and sewer collection systems. Each Member should establish by ordinance or resolution, the limits of their responsibility for the maintenance, inspection, and repair of mainlines, service laterals, and other related wastewater facilities.

# ***SEWER BACKUP REDUCTION PROGRAM***

## **A Guide for Wastewater Agencies**

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# CHAPTER 1: General Program Information

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## OVERVIEW

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All public wastewater districts have a responsibility to maintain their sewer systems—both to protect citizens and property that may be damaged due to sewer backups, and to reduce the district’s exposure to claims and litigation.

The public agency has a duty of care to assure that:

- 1) Sewer systems have been correctly designed and installed;
- 2) Sewer systems are adequately maintained through planned inspections and repair;
- 3) Emergency response plans and employee are established to deal with sewer blockages and backups; and
- 4) Property owners affected by sewer backups receive the information and support they need.

A Sewer Use Ordinance helps assure public cooperation in these efforts (***sample Sewer Ordinances, adopted by other public agencies, can be obtained through the JPIA. Be sure to have legal counsel review any proposed ordinance prior to passage.***)

The frequency of sewer backup problems has increased throughout communities during the last few years. Statistics report that more than 500,000 sanitary sewer overflows occur annually in the United States. This procedural guide is intended to help develop or strengthen the public agency’s plan for prevention of such incidents and control of general liability losses. Sample guidelines, checklists and report forms have been provided, but should not be relied upon as a substitute for appropriate technical expertise or legal advice. Each ordinance, policy and procedural document should be customized to meet the needs of each agency.

Please contact the JPIA Risk Management or Claims department if you need further information or assistance.

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# **SAMPLE SEWER BACKUP POLICY**

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*(Public Agency Letterhead)*

## **SEWER BACKUP MANAGEMENT POLICY**

It is the accepted responsibility of (name of Public Agency) to adequately preserve the integrity of its sewer system. Sewer systems must be kept in good repair and free from obstructions that may hinder the system and cause damage, financial loss or inconvenience to its citizens.

All (name of Public Agency) personnel are expected to follow the procedures outlined in this manual, fulfilling their duty to prevent sewer backup incidents to the best of their ability.

It is the responsibility of senior management personnel to assure that appropriate personnel are assigned, adequately trained and held accountable for following all required sewer backup prevention procedures.

This policy has been adopted on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_

*(signature)*  
\_\_\_\_\_  
Name, Title

*(signature)*  
\_\_\_\_\_  
Name, Title

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## **PREVENTIVE MAINTENANCE GUIDELINES**

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### **System Design:**

New sewer system components should be designed by qualified engineers and installed by contractors in accordance with accepted engineering specifications.

Repairs or improvements to existing sewer lines must use high quality durable materials.

### **Sewer Use Ordinance:**

The Public Agency should have a Sewer Ordinances (*samples available from the JPIA*) that requires installation of cleanouts and back-flow prevention assemblies in all new construction, and encourages installation of back-flow preventers on the lowest drains of all existing buildings. All restaurants, Laundromats and other appropriate commercial facilities should be required to install grease traps and participate in Fat, Oil and Grease (FOG) programs. (at minimum, applicable to all new or remodeled connections). Property owners should be prohibited from directing sump pumps and downspouts into the sewer system. The requirements of this ordinance should be clearly communicated to all property owners/residents on a periodic (at least annually) basis.

### **Preventive Inspections, Cleaning & Maintenance:**

The formal sewer inspection and cleaning program to be followed should include:

- Schedules for planned inspection routes in every area of the district. Local standards will determine how frequently sewer system lines should be flushed, jetted or rodded. As a general guideline, it is recommended that inspection and/or maintenance of the entire public sewer system take place every 18 to 36 months.
- Schedules for more frequent inspection of potential problem areas, as identified by previous inspections, customer service complaints, history of spills or consulting engineering studies, (e.g. intruding vegetation or tree roots, low spots in sewer lines, excess debris sources, etc.).
- Lift stations should be equipped with power failure and high level alarms that notify a staffed location or on-call pager. An alternative power source should be available to maintain operation of facilities during power outages.
- A process for monitoring, documenting and gauging inflows so that lift stations and facilities have adequate staffing and monitoring during periods of heavy flow.
- Visual monitoring of lines with TV cameras on a regular basis. It is recommended that inspection and/or maintenance of the entire public sewer system take place every 18 to 36 months.
- Testing of sewer line connections during inspections, making repairs where necessary.
- Cleaning of sewer lines where evidence of impeded flow is found;

- Procedures for avoiding an excess surge in downstream lines when line flushing or removing blockage.
- Repair or replacement of aging system components, and those that have suffered deterioration.
- A log for documenting when each line and manhole has been inspected, cleaned or repaired (**see Appendix: Sewer Inspection & Maintenance Report, page 13, and Manhole Inspection Checklist, page 14**).

If inspection or maintenance cannot be completed within 60 days of the scheduled time, management should be notified immediately and the inspection or maintenance rescheduled as soon as possible.

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# SEWER BACKUP RESPONSE PROCEDURES

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## Office Response to a Sewer Spill / Backup Report:

Proper and professional response by Agency personnel when an individual home or business owner reports a sewer backup problem can greatly minimize stress and loss from such incidents. A stressed caller should be treated with consideration and empathy. The call should be accepted or quickly referred and the following information gathered or provided:

- The location of the sewer backup and the person calling.
- The scope of immediate risks to people and property.
- Clear information about how the Agency will respond and when.
- Suggestions for proper precautions that may minimize loss.

***(See Appendix: Sewer Backup Intake Report, page 15)***

## Field Response to a Sewer Backup Report:

Timely action taken by field personnel will vary, depending upon the situation. It is vital that the individual who reported the backup be met calmly. Full respect shall be shown for the owner's property and possessions.

- Follow the Sanitary Sewer Overflow /Sewer Backup Emergency Response Plan as directed.
- Supervisor on site is to give details to the owner what the crew will be looking for during the inspection.
- Inspect the sewer backup area and take steps to protect people and property that may be at immediate risk. **(See Appendix: Onsite Sewer Backup Assessment, page 11)**
- Take all necessary steps to determine the cause of the backup:
  - Check the flow in manholes above and below the backup location.
  - Televiser or take photographs of the lines to find and help document the problem.
- Quickly arrange to correct the problem if it is determined to be in the main lines:
  - If a blockage has caused the backup, remove the cause of the blockage and try to preserve it as evidence.
  - If possible, pump out the blocked area first, to avoid excess downstream surge.
  - If backup damage was significant, consider helping with initial cleanup, e.g., containment, removal of water and sewer sludge.
  - Never discuss matters of legal claims or liability for damage. Explain that the Agency's insurance carrier will investigate and make final decisions regarding responsibility based on the facts.
- If the blockage problem was in the lateral line, clearly explain to the user what they must do to repair the problem.

- Provide a list of local plumbing/sewer line repair companies or suggest they use the yellow pages. Do not make recommendations.

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## SEWER BACKUP INVESTIGATIONS

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**Documented sewer backup and spill incident investigations are important for preserving the integrity of the sewer system, for providing insurance coverage information, and for reducing the risk of litigation against the Agency.**

1. An analysis of the frequency and severity of sewer backup incidents can provide information to identify vulnerable areas of the system, the need for changes in inspection schedules, or a lack of accountability by district personnel.
2. Accurate information helps the Agency's insurance carrier establish claim responsibility. If a claims examiner is contacted by a claimant, it is critical that they have been prepared with accurate information about the incident, so they can discuss liability issues and options for the claimant.
3. All sewer backup reports received and investigations completed should be immediately documented and reported to the District's insurance carrier within 24 hours.
  - The initial report should indicate the time of the complaint, name of caller, personnel that received the complaint, and to whom the complaint was forwarded. **(See Appendix: Initial Sewer Backup Intake Report, page 15)**
  - The onsite investigation should be thoroughly documented at the time of the site visit, answering all questions on the checklist that can be determined. **(See Appendix: Onsite Sewer Backup Assessment, page 16)**
  - Additional follow-up investigations may also be important—particularly if there has been any question as to responsibility for the backup, or if something could be done to improve future responses. **(See Appendix: Sewer Overflow Follow-up Investigation, page 17)**
4. Copies of all reports, documentation, videos, photographs and causal evidence should be forwarded to the designated Agency personnel and to the insurance carrier representative as soon as possible.

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## SEWER BACKUP EMERGENCY RESPONSE PLAN

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An emergency response plan should be developed to assure that applicable personnel are prepared to take timely and professional action in the case of a sewer backup incident. The plan should include at least the following:

- Primary response personnel designated for all areas of the district, including names, titles & emergency phone numbers (***see Appendix: Reference & Emergency Contact list, page 19;***
- Back up personnel to be contacted should those in primary positions be unreachable (***see Appendix: Reference & Emergency Contact list, page 19;***
- Police & Fire Department phone numbers (non-emergency) to inform them that the Agency is attending to a sewer line problem;
- Specialty contractor information that may be needed for plumbing/sewer line repair, cleanup or engineering consultation. Contractors' business, emergency home numbers, and insurance information should be on record and updated annually;
- Names and telephone numbers of any regulatory or environmental agency that should be informed of a sewer backup or wastewater problem in the region;
- Name of the assigned management personnel who is authorized to speak to the media in the event of a major problem that may effect the larger community or citizen lives. All personnel should know the name of the authorized media spokesperson.
- A list of all emergency cleanup or pumping equipment, and where it is stored.
- A power failure backup system should be in place, as well as a failure alarm system for all lift stations, or sewer pump stations.
- Alarms should notify a staffed location, or 24-hour "on call" pager. Alarm systems should be tested at least annually.

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## LEGAL & LIABILITY CONSIDERATIONS

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### **Responsibility vs. Liability:**

Agencies may be held responsible for damages that arise from *preventable* sewage backups in the public sewer system. An Agency has a duty to exercise “*ordinary and reasonable care*” to keep its sewers free from obstructions. This generally equates to responsible sewer system repair and maintenance. Failure to meet repair and maintenance duties may create “ordinary negligence,” it does not necessarily mean the district is strictly liable in cases of sewer backups and resulting damage to property.

Some of the District’s legal protection is due to the fact that volumes of rainwater alone can cause a backup. An Agency is not obligated to build a system that is large enough to carry away all water that may result from even normal rainfall. The Agency also has immunity when it comes to the building and initial construction of sewer systems—these are legislative functions. In any litigation regarding sewer backup, a claimant must establish the *negligence* of the district.

Nevertheless, in some districts, sewer backups have led to costly and time consuming legal action against the District by property owners and businesses. The backup of raw sewage into a building, onto streets or into nearby surface water, carries the potential for serious health, safety and environmental problems. Such events are subject to regulations by the United States Environmental Protection Agency (EPA) as well as state and local agencies. In some cases, where flooding problems have been traceable to a district’s negligent operation of the systems, the courts have denied governmental immunity and required the Agency to pay damages. This document cannot address specific prosecutions. The highly technical legal issues associated with some of these suits can best be explained by legal council.

### **Liability Questions From Property Owners:**

All district personnel should be instructed *never* to discuss findings or observations about the causes of a sewer backup with a claimant or the claimant’s service contractor or insurance company. This is an important aspect of employee training. Incident investigation reports should be promptly completed and forwarded to the district’s insurance carrier. If an individual raises questions about legal responsibility, they should be advised that the district’s insurance carrier will complete an investigation into the legal liability, coverage and damage. Department personnel are not qualified to discuss liability. The district’s insurance carrier claims representative will discuss these issues with claimants on behalf of the District.

### **Keys to Avoiding litigation:**

The most important thing to remember is, the negligence test is less likely to be found, and litigation against the District is less likely to take place if:

- A regular maintenance program is in place;
- Inspections and repairs are thoroughly documented;
- Reports of problems are given quick response;

- Citizens are treated with courtesy, consideration and given requested information;
- Insurance carriers are provided with timely sewer backup reports so that questions from claimants can be promptly answered.

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## **EDUCATION & TRAINING**

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### **Employee Qualifications and Training:**

Wastewater employees must meet all State Water Resources Board and Department of Health qualifications for licensing and should receive regular, updated training in:

- Cleaning and inspection methods and procedures;
  - The use of cleaning equipment;
  - All aspects of the Sanitary Sewer Overflow and Emergency Response Plans;
  - Appropriate measures to take for cleaning up a sewer backup incident and minimizing further damage;
  - Education in the source and control of bloodborne pathogens, including use of personal protective equipment.
- Designated personnel should be trained to investigate conditions that might have caused the backup, and to record the extent of property damage.
  - Employees must thoroughly understand that the district may not be responsible for blockages/problems that occur in the service lateral, if it is not considered to be part of the public sewer system, but is a private line for which the property owner is responsible.
  - Employees must also be trained to understand the importance of providing citizens with courteous, accurate information about responsibility for backups, but must refer legal or liability questions to claims adjusters.
  - All training should be documented and updated at least annually.

### **Community Education:**

Information should also be provided to residential and business customers through service agreements, general education brochures, or in flyers for those that have suffered back-flow problems. Among other facts of interest, these brochures should explain:

- What may cause sewer backup problems;
- How to help prevent sewer backup incidents by avoiding the deposit of grease or bulky non-soluble items down drains or toilets;
- The value of back-flow preventers for below-ground building levels and drains, and techniques for periodically inspecting them;
- How and where to report a sewage backup problem;
- How to purchase sewer backup endorsements through an insurance agent.

***(See Appendix: Sewer Backup Community Education flyer, pages 21-22)***

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## INTERNET RESOURCES FOR ADDITIONAL PUBLIC UTILITY INFORMATION

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1. The **American Water Works Association (AWWA)** 6666 West Quincy Ave, Denver, Colorado 80235, Phone: (800) 926-7337(4) Fax: (303) 794-8915, [www.awwa.org](http://www.awwa.org).

The AWWA is an international nonprofit scientific and educational society dedicated to the improvement of drinking water quality and supply. Members represent treatment plant operators and managers, scientists, regulators, environmentalists, manufacturers, academicians, and others interested in water supply and public health. This website offers technical resources, conference papers, online training for the water industry, and a variety of electronic links of interest to the drinking water community.

[www.awwa.org/links.cfm](http://www.awwa.org/links.cfm) lists all existing utility districts by State/Province, with links to each individual water district's Web page. This page also directly links to dozens of other Web pages for government updates, water related news, water quality and pollution, international water sites, water resources and education sites, water related organizations and much more.

2. **Rocky Mountain Water Environment Association**, [www.rmwea.org/rmwea/RMWEA.htm](http://www.rmwea.org/rmwea/RMWEA.htm)

Founded in 1936 as the Rocky Mountain Sewage Works Association, RMWEA provides its members in Wyoming, Colorado and New Mexico with current information on water quality issues, technology, regulatory changes, and the latest research developments. RMWEA is a Member Association of the Water Environment Federation, (WEF) an international organization with over 40,000 members worldwide.

3. **National Environmental Health Association**, 720 S. Colorado Blvd., Suite 970-S., Denver, CO 80246-1925, 303-756-9090, [www.neha.org](http://www.neha.org)

The National Environmental Health Association (**NEHA**) had its origins in the state of California where it was incorporated in 1937 to establish a standard of excellence for environmental health practitioners. Today, the association offers seven national credential programs for technicians and a variety of educational conferences, workshops and publications.

4. **Local Government Environmental Assistance Network**, [www.lgean.org](http://www.lgean.org)

The Local Government Environmental Assistance Network (LGEAN) is a "first-stop shop" providing environmental management, planning, funding, and regulatory information for local government elected and appointed officials, managers and staff. LGEAN enables local officials to interact with their peers and others online. It also manages a toll-free telephone service (877/865-4326) and has a Consultants Directory that enables local government officials and other users to identify and contact consultants who perform specific environmental services.

5. **California State University Sacramento Office of Water Programs**, [www.owp.csus.edu/](http://www.owp.csus.edu/)

The Office of Water Programs at the (CSUS) College of Engineering and Computer Science provides distance learning courses for persons interested in the operation and maintenance of drinking water and wastewater facilities. Their training programs were developed for the U.S. Environmental Protection Agency by people who explain, through the use of manuals and videos, how they operate and maintain their facilities.

6. **Association of Metropolitan Sewerage Agencies**, 1816 Jefferson Place, NW, Washington D.C. 20036-2505, Phone: (202) 833-AMSA, Fax (202) 833-4657, [www.amsa-cleanwater.org](http://www.amsa-cleanwater.org)

AMSA represents the interests of over 300 public agencies and organizations whose objective is scientifically based, technically sound and cost effective laws and regulations for clean water. AMSA maintains a key role in the development of environmental legislation, and works closely with federal regulatory agencies in the implementation of environmental programs. Membership, conferences and publications are offered on the Web site.

7. **American Public Works Association**, [www.apwa.net](http://www.apwa.net)

The APWA is an international educational and professional association of public agencies, private sector companies, and individuals dedicated to providing high quality public works goods and services. With 67 chapters throughout North America, APWA provides a forum in which public works professionals can exchange ideas, improve professional competency, increase the performance of their agencies and companies, and bring important public works-related topics to public attention in local, state and federal arenas. Current and archived reports of legislative activities are listed and described on the site.

8. **United States Environmental Protection Agency, Office of Wastewater Management**, [www.epa.gov/OWM/](http://www.epa.gov/OWM/)

The EPA's Wastewater Management Web Page features a variety of types of information for the water industry. An index links to a long list of alphabetized water topics, including Sanitary System Overflow. A showcase provides information for environmental educators regarding outstanding products related to nonpoint water pollution. Resources come in a variety of formats -- publications, videos, classroom materials, etc.

9. **Water Environment Federation (WEF)**, Alexandria, VA, (800) 666-0206, [www.wef.org](http://www.wef.org)

Founded in 1928, WEF is a not-for-profit technical and educational organization with members from varied disciplines who work toward the WEF vision of preservation and enhancement of the global water environment. The WEF network includes more than 100,000 water quality professionals from 79 Member Associations in 32 countries. The Website lists workshops, conferences and water legislation updates.

## **CHAPTER 2: Forms & Documentation**

The following sample forms and checklists are offered for district use and/or customization, in developing a comprehensive sewer backup loss prevention program for your agency.

Feel free to incorporate whatever forms may be useful to you, change them in any way that meets your needs, and add your own letterhead or logos.

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# SEWER INSPECTION & MAINTENANCE REPORT

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Date of Inspection: \_\_\_\_\_ Time of Inspection: \_\_\_\_\_ a.m./p.m.

Name of Employee Completing Report: \_\_\_\_\_

Location (be specific by line(s), manhole #(s), etc.): \_\_\_\_\_

Reason for inspection or maintenance (routine/scheduled/preventive, overflow, problem history, etc.): \_\_\_\_\_

Conditions found (both usual and unusual: \_\_\_\_\_

Unusual conditions were reported immediately to the following supervisor(s): \_\_\_\_\_

List inspection or maintenance work performed: \_\_\_\_\_

List equipment used: \_\_\_\_\_

List personnel who performed inspection or maintenance: \_\_\_\_\_

Other information: \_\_\_\_\_

Follow-up action needed at this location: \_\_\_\_\_

Based on conditions found during this visit, it is recommended that this location be inspected/maintained again within:

1 month _____	9 months _____	24 months _____
3 months _____	12 months _____	36 months _____
6 months _____	18 months _____	

## MANHOLE INSPECTION CHECKLIST

Manhole Number: \_\_\_\_\_ Inspector: \_\_\_\_\_  
 Manhole Barrier \_\_\_\_\_ Interceptor: \_\_\_\_\_ Manhole \_\_\_\_\_ (Rim to Invert)  
 Diameter: \_\_\_\_\_ Depth: \_\_\_\_\_

Item Inspected	Date Inspected (date each line that applies)		Repairs Needed (√ each that applies)	Repairs Made	Date Repairs Made
<b>COVER</b>	Lift Pin	/ /	Needs Pin		/ /
	Bolt Down	/ /	Bolt Missing		/ /
	Locking	/ /	Replace		/ /
	Non-Rocking	/ /			
<b>CASTING</b>	Badly Rusted	/ /	Reset		/ /
	Knocked Loose	/ /	Raise		/ /
	Good Condition	/ /	Replace		/ /
<b>CHIMNEY</b>	Brick	/ /	Leaks		/ /
	Concrete	/ /	Re-mortar		/ /
	Good Condition	/ /	Replace		/ /
	Loose Mortar	/ /			/ /
	Offset Opening	/ /			/ /
	Center Opening	/ /			/ /
<b>BARRELS</b>	Good Condition	/ /	Leaks		/ /
	Slight Corrosion	/ /			/ /
	Bad Corrosion	/ /			/ /
<b>BENCH</b>	Grease Build-up	/ /	Clean		/ /
	Bad Concrete	/ /	Patch		/ /
	Good Condition	/ /			/ /

<b>CHANNEL</b>	Rocks in Channel	/	/	Clean			/	/
	Grease Build-up	/	/				/	/
	Bad Corrosion	/	/				/	/
	Depth of Flow	/	/				/	/
	Depth of Grit	/	/				/	/

<b>INTER-CEPTER</b>	<b>CHECK</b>	<b>YES</b>	<b>NO</b>	<b>Leaks</b>		
	Lamped					
	Loose Gaskets					
	Infiltration					
	Slight Corrosion					
	Bad Corrosion					
	Scratch Test					
	Scratch Depth		Inches			

Incoming Lines:  
 Sketch location, note size,  
 and measure height  
 of all incoming lines  
 (from the pipe invert.)

Additional Comments /  
 Observations:

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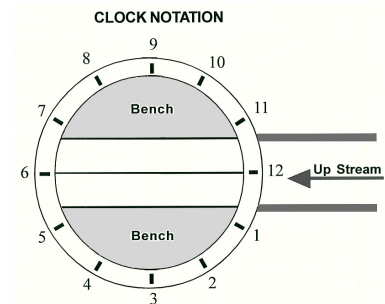
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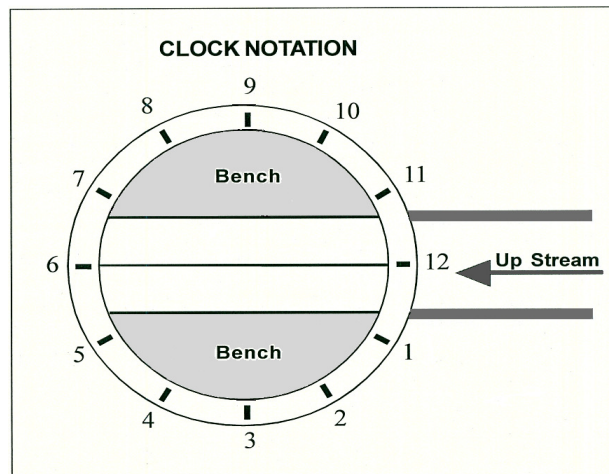
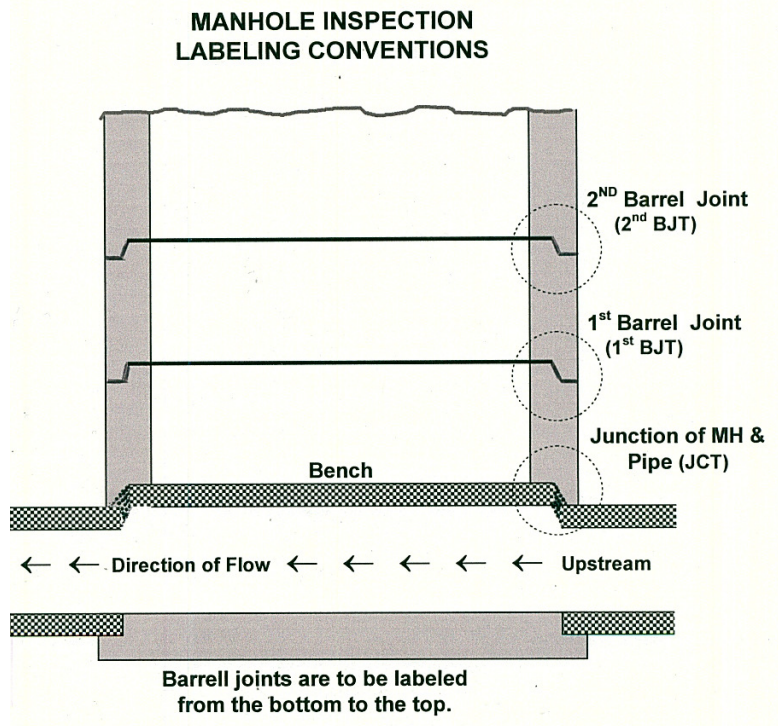


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# SEWER COMPONENT GRAPHICS

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(Sketch / Notate Inspection Findings)



## SEWER BACKUP INTAKE REPORT

*Complete this checklist each time a backup is reported. Help the caller remain calm and rational. Show empathy and maintain a professional manner. Never insinuate or admit any fault on the part of either the caller or the*

Name of Caller: \_\_\_\_\_

Date of Call: \_\_\_\_\_ Time of the Call: \_\_\_\_\_ a.m./p.m.

Approximate date and time of the overflow, if different than above: \_\_\_\_\_ a.m./p.m.

The location address, or nearest cross street: \_\_\_\_\_

Location of overflow (basement, restroom, laundry room, etc.): \_\_\_\_\_

Approximate size of overflow in gallons: \_\_\_\_\_

Immediate health or safety issues: \_\_\_\_\_

Property at risk or affected by the overflow: \_\_\_\_\_

Is the overflow expanding, stationary or receding? \_\_\_\_\_

What has or is being done by the caller or others? \_\_\_\_\_

The Callers Phone Number: \_\_\_\_\_

### INSTRUCTIONS TO THE CALLER

1. Instruct the caller to take proper precautions to minimize loss and potential health effects:
  - Keep children, pets and others out of the overflow.
  - Electrical appliances in affected areas present an electrocution hazard.
  - Move uncontaminated property away from the overflow area.
2. Clearly communicate who will be out to the site and approximately when they should arrive.
3. Explain what area(s) they will need to have access to.
4. Explain how the action to be taken is dependent upon the location of the blockage:
  - If blockage is in the District's main lines it will be promptly cleaned.
  - If blockage is in the owner's lateral line, the District cannot work on private property.
  - In that case, inform callers that they must contact a local sewer service or cleanup firm. You may wish to offer a prepared list of cleaning contractors (without recommendations).
5. Give the caller your name, title and phone number.
6. Never respond to questions about legal responsibility. Explain that the Agency's insurance provider will investigate any responsibility for the backup.
7. Record the information in a daily or weekly incident log.
8. Quickly refer the call, and forward a copy of this report to the appropriate field office and insurance carrier.

## ONSITE SEWER BACKUP INCIDENT ASSESSMENT

*(To be completed after the backup problem is corrected. Complete one assessment for each property involved.)*

Date and time you arrived onsite: \_\_\_\_\_ a.m./p.m.  
 Property Owner's / Resident's Name: \_\_\_\_\_  
 Address or nearest cross street: \_\_\_\_\_  
 District personnel involved in clearing overflow: \_\_\_\_\_

Approximate date & time of overflow: \_\_\_\_\_ a.m./p.m.  
 Location of overflow (basement, restroom, laundry room, etc.) \_\_\_\_\_

Approximate size of overflow in gallons: \_\_\_\_\_

***Only use the buddy system when it is necessary to enter a private residence or business.  
 DO NOT track sewage to uncontaminated areas of the property.***

List items that have been affected by the overflow: \_\_\_\_\_

Did the property owner/resident take action to protect the property?	Yes _____	No	apparent action _____
Has a cleaning contractor been contacted by the property owner/resident?	Yes _____	No	_____
Is the backup likely to affect fish, wildlife or waterways?	Yes _____	No	_____
If yes, have State and local agencies been notified?	Yes _____	No	_____

Initial actions taken (sign posted, barricades, sample taken, public notified): \_\_\_\_\_

Subsequent actions taken to prevent future overflows at this location: \_\_\_\_\_

Did you observe conditions that may have led to the overflow?    Yes \_\_\_\_\_ No \_\_\_\_\_    If Yes, what were they? \_\_\_\_\_

### INFORMATION FOR THE PROPERTY OWNER/RESIDENT

1. Instruct the property owner/resident to take the following precautions to minimize loss and potential health effects, if not already done:
  - Keep children, pets and others out of the overflow.
  - Electrical appliances in affected areas present an electrocution hazard.
  - Move uncontaminated property away from the overflow area.
2. Clearly communicate that if blockage is in the municipality's main lines it will be promptly cleared, but if blockage is in the property owner's lateral line, District employees will not be allowed to clear it. In that case, property owners/residents must contact a local sewer service or cleanup firm.
3. Suggest using the yellow pages or offer a prepared list of cleaning contractors, without making recommendations.
4. Show concern and empathy for the property owner/resident, but do not admit or deny liability. Remain calm and professional, even if the property owner/resident is distraught and emotional; if violent, leave the site and call for assistance.
5. Give the property owner/resident your name, title and phone number for future reference.
6. Provide the resident with a copy of the flyer, "Information for Homeowners & Residents - Facts About Sewer Backup Incidents."
7. Forward a copy of this Report to the appropriate office and insurance carrier.

# SEWER BACKUP FOLLOW-UP INVESTIGATION

*Following an overflow incident, a full investigation may indicate additional follow-up actions to be taken, suggest procedural changes that could improve future responses, and will provide full information to claims adjusters.*

Location/Address of Overflow \_\_\_\_\_

Onsite Response Personal \_\_\_\_\_ Date of Onsite Response: \_\_\_\_\_

Property Owner Name \_\_\_\_\_ Phone: \_\_\_\_\_

**FINDINGS** (Answer all questions that can be determined):

Date the District was first notified of the problem? How notified?	
What action was taken when notified, and when?	
What was the apparent extent of damage to property?	
What was the apparent cause of the backup?	
What methods of investigation were used (visual, videos, etc.)	
What is the estimated age of the sewer main?	
Type of construction of the sewer main?	
What is the record of frequency of inspection/cleaning at the site?	
Last date of inspection/ cleaning prior to the incident?	
Method of cleaning/inspection on that last date (flushed, jetted, rodded, etc.)	
Was this problem found to be in the main or the lateral?	
Have there been prior problems with blockage in the main? When?	
Are there major industries, schools, restaurants on this main? How close?	
Was the District doing any work in the area prior to the backup? If so, what was being done?	
Any other non-district construction going on in the area. If so, what was being done?	

*The Backup Investigation Report must be completed and returned to \_\_\_\_\_ within \_\_\_\_\_ hours of the onsite assessment and action, and forwarded to the insurance carrier within \_\_\_\_\_ hours of the investigation.*

# SANITARY SEWER REFERENCE & EMERGENCY CONTACT LIST

<b>Department/Agency:</b>		
Primary Contact: _____	Phone: _____	Pager: _____
Secondary Contact: _____	Phone: _____	Pager: _____
<b>Department/Agency:</b>		
Primary Contact: _____	Phone: _____	Pager: _____
Secondary Contact: _____	Phone: _____	Pager: _____
<b>Department/Agency:</b> STATE WATER RESOURCES BOARD		
Primary Contact: _____	Phone: _____	Pager: _____
Secondary Contact: _____	Phone: _____	Pager: _____
<b>Department/Agency:</b> LOCAL HEALTH DEPARTMENT		
Primary Contact: _____	Phone: _____	Pager: _____
Secondary Contact: _____	Phone: _____	Pager: _____
<b>Department/Agency:</b> POLICE DEPT. (Non-Emergency)		
Primary Contact: _____	Phone: _____	Pager: _____
Secondary Contact: _____	Phone: _____	Pager: _____
<b>Department/Agency:</b> FIRE DEPT. (Non-Emergency)		
Primary Contact: _____	Phone: _____	Pager: _____
Secondary Contact: _____	Phone: _____	Pager: _____
<b>Department/Agency:</b> CLEANUP CONTRACTORS		
Primary Contact: _____	Phone: _____	Pager: _____
Secondary Contact: _____	Phone: _____	Pager: _____
<b>Department/Agency:</b> AGENCY'S MEDIA SPOKESPERSON		
Primary Contact: _____	Phone: _____	Pager: _____
Secondary Contact: _____	Phone: _____	Pager: _____

**A list of all emergency cleanup or pumping equipment, and where it is stored, is attached.**

Last Updated: \_\_\_\_\_

## **CHAPTER 3: Public Information & Education**

The following property owner information and educational flyers are offered for your use and/or customization, in developing a comprehensive sewer backup loss prevention program for your municipality.

Feel free to incorporate whatever forms may be useful to you, change them in any way that meets your needs, and add your own letterhead or logos.

## INFORMATION FOR RESIDENTS & PROPERTY OWNERS

### - Facts About Sewer Backup Incidents -

Sewer backups are an unfortunate but common problem in U.S. cities and towns. Although wastewater agency departments make every effort to prevent such incidents, they still may occur. The following information is offered to help property owners and residents understand why backups happen, how they can be prevented, and what steps citizens should take if a sewer backup affects their property. The following questions and answers may be helpful:

#### What causes a sewer backup?

Sanitary sewer overflows can be caused by a number of factors. They usually involve sewer pipe blockages in either main sewer lines or service laterals (lines between buildings and the main line). Causes may include pipe breaks or cracks due to tree roots, system deterioration, insufficient system capacity due to residential or commercial growth, or construction mishaps. In home and office plumbing systems, the main cause is accumulation of grease, tree roots, hair, or solid materials, such as disposable diapers or sanitary napkins that are too large for wastewater pipes to handle. Such materials may cause major backups in City lines as well as in residents' lateral lines. A frequent cause of water stoppages within an Agency's system, however, is vandalism. Leaves, sticks, rocks, bricks and trash have been found stuffed down manholes. We hope you will report observations of any such activity.

#### How could a sewer backup affect me?

If the backup occurs in a District maintained line, the wastewater will normally overflow out of the lowest possible opening, which is usually a manhole. However, in some homes—especially those with basements, or where the lowest level is even with the sewer lines—the overflowing wastewater may exit through the home's lower drains and toilets.

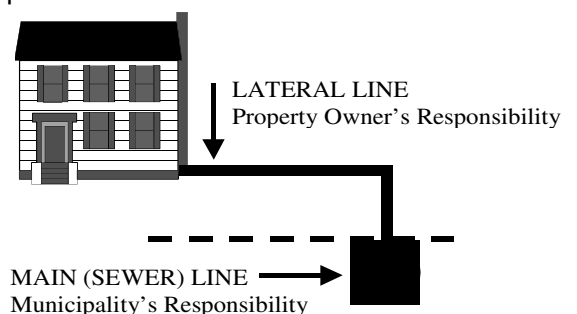
#### What should I do if sewage backs up into my home?

First, take action to protect people and valuable property:

- Keeping in mind that ceramic plumbing fixtures such as toilets are fragile, quickly close all drain openings with stoppers or plugs. Tub, sink, and floor drains may need additional weight to keep them sealed. A string mop can be used to help plug toilet openings.
- Don't run any water down your drains until the blockage has been cleared.
- A quick check with nearby neighbors will help determine if the backup appears to be in your neighbor's wastewater line, and/or widespread in your neighborhood. In this case, call the District immediately. Numbers are listed at the end of this flyer.
- Call a plumber if the problem is in your lateral service line.

#### If I call the District, what will they do about a sewer backup onto my property?

- You will be asked questions about the backup timing, location, the property at risk, etc.
- District personnel will check for blockages in the main line. If found, the blockage will be immediately cleared.
- If the main line is not blocked, you will be advised to call a plumbing or sewer contractor to check your lateral line. Maintenance and repair of the lateral line is the owner's responsibility. (See diagram below.)
- To minimize damage and negative health effects, you should arrange for cleanup of the property as soon as possible. There are qualified businesses that specialize in this type of cleanup.
- If the sewer backup onto your property resulted from blockage in the main sewer line, District personnel will explain what the District can immediately do to help take care of the problem.



**Is there anything I can do to prevent sewage backup into my home?**

- Avoid putting grease down your garbage disposal or household drain. It can solidify, collect debris and accumulate in District lines, or build up in your own plumbing system and lateral.
- Never flush disposable diapers, sanitary napkins or paper towels down the toilet. They could stop up your drains and may damage your plumbing system.
- If the lateral line in your older home has a jointed pipe system, consider whether the roots of large shrubs or trees near the line could invade and break pipes. It is a good idea to know the location of your lateral line(s) and cleanouts. Property maps can often be acquired from your local building or planning department.
- If the lowest level of your home is below ground level, such as a basement floor drain, it may one day be affected by a backup. One way to prevent sewage backup through such below ground areas is to Install a “back-flow valve” on the lowest drain(s). You can also use a plumber’s test plug to close these drains when not in use.
- For further information about preventive measures, contact a plumber or plumbing supply dealer.

**What does the District do to prevent this problem?**

- Every attempt is made to prevent backups in the public wastewater system before they occur. Sewer lines are specially designed to prevent accumulation and stoppages.
- In addition, we have maintenance crews that are devoted to inspecting and cleaning wastewater lines throughout the District on a regular schedule.
- Degreasing chemicals are sometimes also injected into lines in areas that are prone to stoppages, such as those near restaurants, apartments or high density housing developments.
- Even with our maintenance schedule, however, backups are often beyond the District’s control. Most that do occur are confined to the sewage pipeline, rather than backing up into a home.

**Will insurance cover any damage to my home or property?**

In the majority of cases, a special rider may be needed to be added to your homeowner’s or renter’s insurance policy to cover damages related to sewage backups or water damage. This optional coverage is usually not very expensive, but you must usually request that it be added to your policy. Check with your insurance agent about this policy provision.

As with the majority of public agencies in the country, the District cannot assume financial responsibility for damages resulting from sewage backups, since most stoppages are related to conditions that are beyond the Agency’s control. That is why it is important that property owners confirm that they are adequately insured—particularly if areas of their home lie below ground level.

Consider contacting your insurance agent today to have this sewer spill protection coverage added to your policy.

**How and where should I report a sewer backup?**

Emergency crews are on call 24 hours a day to assist you. In an emergency such as a sewer line backup, or if you observe any vandalism associated with the wastewater or sewer lines, contact the department:

Phone Number	Days	Hours
( )	Monday - Friday	___ a.m. to ___ p.m.
( )	Weekends and holidays	24 hours

## **CHAPTER 4: Employee Training Package**

The following sample test, answer key and training outline are offered for your use and/or customization, in developing a comprehensive sewer backup loss prevention training program for your Agency's employees.

Feel free to incorporate whatever materials may be useful to you, change them in any way that meets your needs, and add your own letterhead or logos.

(Your Municipal Letterhead)

(Your District Logo)

# **SEWER BACKUP TRAINING REVIEW**

Employee: \_\_\_\_\_

Department/Division: \_\_\_\_\_

Supervisor/Trainer: \_\_\_\_\_

Training Date: \_\_\_\_\_

# TRAINING REVIEW - SEWER BACKUP INCIDENTS

1. According to the Governmental Immunity doctrine, the district is legally responsible for damages that are caused by \_\_\_\_\_ in the maintenance of public sewer systems.

2. List at least three (3) basic steps a district should take to maintain the integrity of its wastewater system:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

3. Name three (3) requirements of our Sewer Use Ordinance that are the responsibility of property owners:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

4. In our District, how often are sewer systems to be inspected for maintenance and repair purposes?

\_\_\_\_\_

5. List three (3) basic steps that should be taken onsite, when responding to a sewer backup report:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

6. If a sewer backup is found to have been caused by blockage in the main line, what information should be conveyed to the property owner/resident? \_\_\_\_\_

7. If a sewer backup is found to have been caused by blockage in the property's lateral line, whose responsibility is it to correct the problem? \_\_\_\_\_  
\_\_\_\_\_
8. List three (3) things residents can do to help prevent sewer backup problems:  
1. \_\_\_\_\_  
2. \_\_\_\_\_  
3. \_\_\_\_\_
9. Name three (3) reasons why thorough, documented follow-up investigations of backups can be invaluable:  
1) \_\_\_\_\_  
2) \_\_\_\_\_  
3) \_\_\_\_\_
10. Copies of on-site sewer backup reports and follow-up investigations should be forwarded to \_\_\_\_\_ our insurance coordinator, within \_\_\_\_\_ hours.

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## **TRAINING REVIEW – SEWER BACKUP INCIDENTS (ANSWER KEY)**

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1. According to the Governmental Immunity doctrine, the district is legally responsible for damages that are caused  
by Negligence in the maintenance of public sewer system.
  
2. List at least three (3) basic steps a district should take to maintain the integrity of its wastewater system:
  - 1) Assure that sewers are correctly designed and installed
  - 2) Enforce a Community Sewer Use Ordinance
  - 3) Maintain an adequate schedule of inspections and repairs
  - 4) Provide Sewer Policy & Procedures training for employees
  - 5) Monitor rainfall for adequate staffing of pump stations
  
3. Name three (3) requirements of our Sewer Use Ordinance that are the responsibility of property owners:
  - 1) Back-flow preventers required for all new construction
  - 2) All restaurants and Laundromats must install grease traps in new or repaired connections
  - 3) Sump pumps and downspouts may not be directed into the sewer system
  
4. In our district, how often are sewer systems to be inspected for maintenance and repair purposes?  
(to be determined by each municipality, 18 – 36 months is recommended )
  
5. List at least three (3) basic steps to be taken onsite, when responding to a sewer backup report:
  - 1) Treat property owners with consideration and respect their anxieties.
  - 2) Explain what the crew will be looking for
  - 3) Take steps to protect people and property at risk
  - 4) Investigate and determine the cause of the backup
  - 5) Correct the problem if it is in the main line

6. If a sewer backup is found to have been caused by blockage in the main line, what information should be conveyed to the property owner/resident? Explain that a complete report of the incident will be Forwarded to our insurance coordinator.
7. If a sewer backup is found to have been caused by blockage in the property's lateral line, whose responsibility is it to correct the problem?  
The resident/property owner. (Our employees cannot work on private property)
8. List three (3) things residents can do to help prevent sewer backup problems:
1. Avoid putting grease down drains or garbage disposals.
  2. Never flush disposable diapers, sanitary napkins or paper towels down the toilet.
  3. Avoid planting trees or large shrubs over lateral sewer lines
  4. Install back-flow preventers in drains located below ground level
  5. Periodically have drains cleaned out in older homes
  6. Purchase an insurance coverage endorsement for sewer backup damage
9. Name three (3) reasons why thorough, documented follow-up investigations of backups can be invaluable:
- 1) They can help analyze the need for changes in the sewer maintenance or management system.
  - 2) They can help the insurance carrier accurately determine claim responsibility
  - 3) They can provide critical documentation in the event of litigation against the municipality
10. Copies of on-site sewer backup reports and follow-up investigations should be forwarded to:  
ACWA / JPIA, our insurance coordinator, within 24 hours.

- Treat all water soaked surfaces, furnishings and items as unhealthy until properly cleaned and sanitized.
- Do not use any electrical equipment while standing in water.
- Wet-vacuum or remove spillage.
- Operate wet vacuums only when plugged into a ground fault circuit interrupter or ground fault equipped outlet.
- Mop bare floors and wipe walls with a bleach solution, soap and disinfectants. Bleach solutions (one part bleach to ten parts water) are the most effective disinfectants, but may cause discoloration of many materials.
- Flush out and disinfect plumbing fixtures.
- Remove and discard carpet and steam clean or discard drapes.
- Remove and discard upholstered furniture and porous wood furniture stained by sewage.
- Sanitize and clean hardwood furniture, then thoroughly wipe, dry and apply an oil-based wood polish.
- Sanitize and repair, or remove and discard, paneling, wallboard or wall coverings.
- Clean up appliances or ductwork. If electric motors, wiring or insulation have been

saturated have a qualified service technician to remove the motor, dry it, and inspect for damage before plugging them back in and turning them on.

- Ventilate the affected area with floor fans and a dehumidifier, if available, to properly dry the area. If it has not been directly contacted by water, activate the building's heating, ventilation and air-conditioning (HVAC) system, turn on exhaust or ceiling fans and open windows and doors when conditions are favorable.
- Do not use heat to dry closed building interiors; mildew and expanded water damage may result.
- After the initial cleaning, a second sanitized cleaning should take place.

**For More Information Call: Your Number Here**

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## ***COPING WITH A SEWER BACKUP***

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Insert your Agency seal, logo or other clip art here

Type your Agency name, address and phone number here

## **COPING WITH A SEWER BACKUP**

If you have a backup, call the district at \_\_\_\_\_ (during working hours) or call \_\_\_\_\_ (after hours). We will dispatch a maintenance crew to your address to find out if the stoppage is in the Agency's main or your private line (sewer lateral). If the sewer main is found to be clear, it is the responsibility of the property owner to call a licensed plumber or drain service to correct the problem. The district cannot recommend any plumber. Check your Yellow Pages or Business White Pages. You may want to get at least three estimates from reputable plumbers. Check references to be sure you're dealing with a reputable plumber.

The district will not pay for private plumber bills unless the Agency directs that a plumber be called to solve a problem that is the Agency's responsibility. If the stoppage is in the district's main we will fix it as quickly as possible and keep you informed about what is being done.

A sewer backup creates a stressful and emotional situation for all affected parties. Potentially it may cause health and safety exposures as well as significant property loss. Proper responses to sewer backups can greatly minimize losses from negative health effects and property damages. Every backup is unique and will require different responses but there are

some universal principles that can be applied to all situations.

Sewer backup can lead to disease, destruction of your valuables, damage to your house, and the risk of electrocution. Prompt cleanup of affected property can help minimize the inconvenience and damage. ***You should immediately arrange for a thorough, professional, sanitized cleanup of your affected property:***

- If a dishwasher, washing machine, shower, bathtub, toilet or other water fixture is operating shut it off immediately.
- Quickly close all drain openers with stoppers or plugs. Tub, sink and floor drains may need additional weight to keep them sealed. A string mop can be used to help plug toilets.
- Keep children and animals out of the affected area.
- Potential health and safety hazards must be identified and, if possible, eliminated prior to implementing cleaning or restoration procedures. Before entering the affected area the potential for electrical shock hazards and gas leaks must be assessed.
- Unplug all electrical appliances, small electrical devices on wet floor covering or other wet areas and turn off the circuit breakers supplying electricity to affected areas.

- Turn off the gas (or other fuel source) to your furnace or heater and hot water heater.
- Call the department of Public Works. Wastewater employees will check to make sure our main lines are not plugged.
- Move any uncontaminated property away from the affected areas.
- Take before-and-after photos of the affected areas.

Sewage and floodwaters contain bacteria and other hazardous microorganisms. These can be transmitted by touching contaminated items or by tracking them into uncontaminated areas on shoes. Children and pets are especially vulnerable. Frequent hand washing with hot, soapy water is an important preventative measure.

Cleaning and sanitizing is most effective when performed by professional service companies. Check your Yellow Pages or Business White Pages for reputable Service Company. A thorough cleanup should include, but is not necessarily limited to, the following:

- Wear waterproof boots or waders and heavy-duty rubber gloves and eye protection. To remove gloves, turn them inside out, without touching the contaminated exterior. Dispose of them properly.

