

Date:
January
2007



Public Works Department

Spill Response & Water Quality Trouble Manual



123-5th Ave
Kirkland, Washington 98033
Maintenance Center Phone & Fax:

Phone: 425-587-3900
Fax: 425-587-3902
E-mail: webmaster@ci.kirkland.wa.us
TTY/TTD 425-587-3111



Resource Information, Guidelines & Protocols

- Overview Information & who to call when
- Sampling Guidelines
- Contact information by category
- Forms

Table of Contents

COVER	PAGE 1
TABLE OF CONTENTS	PAGE 2
INTRODUCTION & DISCLAIMER	PAGE 3
PREFACE	PAGE 4-5
Section One:	
SPILL RESPONSE OVERVIEW	PAGE 6
HOW THE WQTCN WORKS	PAGE 6
NETWORK MEMBERS	PAGE 6
SERVICES AVAILABLE TO MEMBERS	PAGE 7
WQTC PROTOCOL & NPDES REQUIRMENTS	PAGE 7
FISH & WILDIFE KILLS	PAGE 8
SEWER OVERFLOWS	PAGE 8
OIL SPILLS	PAGE 9
EXTREME EROSION OR FLOODING	PAGE 9
HAZARDOUS CHEMICAL SPILLS	PAGE 9
ROLE OF PAGER DUTY & BASIC PROTOCOL—KNOWN & UNKNOWN POINT OF POLLUTANT	PAGE 10
WHEN SPILL OCCURS & OTHER CONCERNS	PAGE 11
Section Two:	
SAMPLING	PAGE 12-17
Section Three:	
MAP LINKS	PAGE 18
Section Four:	
CONTACTS	PAGE 19
ROLE OF WATER QUALITY COORDINATOR	PAGE 22
REQUIRED NOTIFICATIONS	PAGE 23
CITY OF KIRKLAND CODE	PAGE 24-26
VIOLATIONS & RESPONSIBLE ENFORCEMENT AGENCIES	PAGE 27
GUIDE FOR SPILL NOTIFICATIONS	PAGE 28-29
Section Five:	
FORMS& SAMPLE SPILL NOTIFICATION MEMO	PAGE 30-33
REIMBURSEMENT INFO.	PAGE 34
ACKNOWLEDGMENTS	PAGE 35

Acknowledgements

Special Thanks To The Following People:

Ben Budka
 Joli Carswell
 Jenny Gaus
 Daryl Grigsby
 John Hopfauf
 Pat Hund
 Rob Jammerman
 Jon Morrow
 Greg Neumann
 Seppo Tervo
 Bobbi Wallace
 Stacey Rush

City of Kirkland Public Works Pager Response Team
 City of Kirkland Police Department Staff
 City of Kirkland Fire Department Staff

Forms—Reimbursement

Local Government Reimbursement

Since 1986, the LGR program has been helping local governments cover costs of emergency responses. For over a decade, EPA has been working closely with hundreds of local governments to make the LGR program an easy and reliable source of funding. More than three million dollars has been awarded by the EPA so far.

Incidents involving releases, or threatened releases, of hazardous substances are covered under the LGR program. Among other things, EPA has reimbursed local governments for releases from transportation accidents, illegally dumped wastes, tire fires, and contamination from illegal drug labs. Incidents involving releases of oil or oil-related products are not covered, unless the oil is mixed with a hazardous substance.

Up to \$25,000 per incident for costs that are incurred in performing temporary emergency response measures are reimbursable. Only costs incurred as a direct result of the response are allowable. To be reimbursed, you must properly document your costs and certify that you do not have money in your budget for these costs. EPA has reimbursed local governments for:

- \$ expendable materials and supplies
- \$ renting or leasing equipment
- \$ special technical and laboratory services
- \$ evacuation services
- \$ decontamination of equipment
- \$ overtime pay for employees
- \$ replacement of equipment lost or destroyed

After an incident you must complete and submit to EPA a basic, four-page application and provide supporting cost documentation (e.g., receipts, invoices). You should submit an application for reimbursement within one year of completing the emergency response. Request an application to become familiar with the program. The help line is 1 (800) 431-9209.

The following criteria for applying to EPA to recover costs:

- \$ Must be a local government
- \$ Who responded to a release (or threatened release) of hazardous substances, pollutants, or contaminants to the environment
- \$ Did not have money in the budget for the response
- \$ Is NOT responsible for the release
- \$ Were unable to recover costs from the responsible party for the release, State government and local government insurance.

The City of Kirkland is pleased to provide you with the first edition of the Spill Response Manual. This manual provides information to assist with investigation of water quality complaints and emergency environmental situations within the city proper.

This manual assists city employees who work for the Public Works Department, as well as for the Public Safety Departments, with needed information to professionally respond to crisis events. Working together staff can respond quickly, efficiently, and effectively during crisis events such as sewer overflows, oil spills that affect surface waters or the sanitary sewer system, extreme erosion or flooding and hazardous chemical spills.

Online manual. The manual is now available for staff with the City of Kirkland at H:\Pw\spill response manual and on the city INTRANET Public Works Dept. homepage in the PW Documents under useful info. The manual will be updated as needed.

Map links. The manual includes links to maps developed by the City of Kirkland's GIS team (flood plain areas, water/sewer information, city boundary and neighborhoods, fire districts and lifeline routes).

Contacts. Multiple agency, city staff and vendor contact numbers are provided in this manual.

DISCLAIMER

The information in this manual is summary in nature and is intended for informational purposes only. It is not intended for legal advice. It does not constitute a complete reference to laws and/or regulations. Responsibility for the proper notification and response to spill, sampling, and the disposal of waste belongs to the generator and the appropriate jurisdiction.



City of Kirkland Eductor Truck

Preface

About the manual

The purpose of the manual is to provide support and information for mutual aid from within the City of Kirkland and support agencies responding to emergency spills. The Spill Response Manual supports the goal of responsiveness by providing an updated list of contacts and response procedures and protocols.



The City of Kirkland coordinates with sewer and water districts, Department of Ecology, King County, and the Cities of Redmond and Bellevue, Fire and Police professionals. It can be difficult to know which agency should perform a specific needed response. This manual will help to provide response information and is intended to understand roles, protocol, legal requirements that will keep the city in compliance with NPDES and provide important contact information.

By fostering cooperative efforts the City of Kirkland's citizens benefit from having a greater opportunity of determining the source of water pollutants and lessening the immediate impacts to the environment.

Who should use the manual

All City of Kirkland employees involved in any aspect of trouble call response should use this manual. City Public Works employees are not first responders to hazardous materials spills and do not clean up spills of this nature.

Personal safety is the utmost priority when responding to a spill call. If you encounter a hazardous materials spill **call 911** immediately and request the Kirkland Fire Department HAZMAT team.

Handle all unknown spills with extreme caution. If in doubt, do not take a chance—call 911.

What this manual covers

This manual contains the information you need to know to perform your duties as an emergency spill responder.

Section 1 is an overview of water quality trouble calls

Section 2 provides information on water sampling

Section 3 provides information on map data

Section 4 provides information for contact numbers

Section 5 provides sample forms you need to document and track trouble calls.

Forms & Sample Memo

City of Kirkland

The Kirkland Spill Coordinator is required to prepare a memo to the Director of Public Works to report the status and details of a spill that required multiple staff (4+) response. The memo should include the who, what, where, and when details of the situation. If public Health is contacted the details to any public beach closures or water access closures should be included, as well as

CITY OF KIRKLAND

123 FIFTH AVENUE | KIRKLAND, WASHINGTON 98033-6189 | 425.587.3900

DEPARTMENT OF PUBLIC WORKS MEMORANDUM

DRAFT

To: Daryl Grigsby, Director

From: Bobbi Wallace, Wastewater & Surface Water Manager

Date: July 11, 2006

Subject: July 4, 2006 Yarrow Bay Sewage Overflow

Sewage overflowed from King County's Yarrow Bay sewer pump station located at 4400 Lake Washington Boulevard, (Yarrow Bay Club Apartments) on Thursday July 4th 2006, from 0930 to 1145 hours.

I was notified at 1225 hours of the sewer spill from Shirley Reed emergency coordinator for King County Department of Natural Resources. I visited King County's Yarrow Bay pump station at 1245 hours; Ron Kohler Offsite Facilities Supervisor for King County Wastewater Treatment Division was the incident commander for the sewage overflow.

The following outlines the event:

- *Sewage overflowed into Yarrow Bay from 0930–1145 hours July 4th, estimate of 67,000 gallons.
 - *Overflow cause was an instrumentation failure. (false power phase loss indicator, which triggered immediate shut down of all pumps to prevent total pump failure)
 - *Water quality samples were taken at the shoreline & in Yarrow Bay for Fecal Coliform and E Coli.
 - *Water sampling will continue to be taken daily until Fecal Coliform and E Coli levels are acceptable.
 - *1345 hours, King County Dept. of Health issued immediate posting of "WARNING Polluted Water Unsafe for Drinking or Recreational Use" signs at the Yarrow Bay Club Apartments, signs will be posted until water quality samples indicate acceptable levels.
 - *July 7th @ 1600hours- King County water quality tests taken on May 6th indicate Lake Washington water quality is acceptable. The "Warning polluted Waters" signs are to be removed, per Steve Witkowski of King County Wastewater Treatment Division.
- I have copies of the water quality samples collected on July 4,5 & 6, 2006 if needed.

Section
One

Water Quality Trouble Call Network Overview

How the WQTC works

The Water Quality Trouble Call Network (WQTCN) was created in the 1980's with the goal of coordinating responses and serving as a clearinghouse for water quality problems in the Seattle-King County area. It consists of sewer and water districts and city, federal, state and county agencies. There is one full time King County WQTCN coordinator. The WQTC coordinator continuously works to develop relationships with staff from agencies involved with water quality issues in the Seattle-King County area. The City of Kirkland is a member of the WQTC Network but does not solely rely on it. This is for your information (FYI) so you are familiar with the resource.

The WA State Dept. of Ecology (N.W. Regional Office) supports the network by responding on a 24 hour basis to crisis problems throughout the region and enforcing state water quality laws. Other agencies respond to particular incidents, either with a geographic focus (for example, within the city limits of Kirkland) or for a specific type of water quality problem (for example, an oil spill in navigable waters).



Knowing who to call and for what reason is the key. Communication, coordination and cooperation are Essential to promote an effective response.

Network members

The contact list identifies appropriate agency telephone numbers to call for a water quality problem. WQTCN members depend on each other's expertise and timely responsiveness when informed of a water quality problem in their jurisdiction. Referring to the WQTCN City List first decreases the need to contact several other agencies. If you cannot immediately identify the appropriate responder, contact the WQTCN Coordinator at (206) 684-2328.

Services available to members

The City of Kirkland is a member of the network and can expect services and assistance from the WQTCN coordinator that includes the following:

1. On-scene sampling assistance and support
2. An up-to-date sampling kit that contains all the equipment you need for quick response to water quality problems
3. Sample analysis at the King County Environmental Lab at no charge
4. Updated resources on the internet
5. Meetings with agencies to train staff about proper sampling protocols and disc jurisdictional issues

Forms & Sample Memo


COM _____

COMPLAINT INVESTIGATION REQUEST

Instructions: To initiate an investigation, completely fill out this form, sign and date it, and submit to City of Kirkland, ATTN: Planning Department, 123 Fifth Avenue, Kirkland, WA 98033

Address or Location of Problem: _____

Name: _____ Phone: _____
 Address: _____ City: _____ Zip: _____

COMPLAINANT: _____
 Owner/Resident: _____ Phone: _____
 Address: _____ City: _____ Zip: _____

DETAILS OF COMPLAINT: _____

Has this complaint been reported previously? If yes, whom and to whom specifically was complaint reported? What action resulted from complaint?

Would you like to be contacted to know the kind of action that will be taken? Yes No

Have you or your neighbors spoken with the individual(s) in question in order to resolve the problem?

SIGNATURE OF COMPLAINANT(S): _____

I REQUEST MY NAME NOT BE DISCLOSED ____ (Initial). Your name will be held in confidence unless formal enforcement action requires your appearance as a witness.

PAGE 1



Section
Five

Forms & Sample Memo



SPILL RESPONSE REPORT FORM

Location: _____ Date/Time: _____

Person Reporting Spill: _____ Phone: _____

Person in Charge on Scene: _____ Phone: _____

Material Involved: _____ Quantity: _____

Source/Cause of Spill: _____

Name and Phone of Spiller (non-CoK): _____

Injuries or Potential Threat to Human Safety: _____

CoK Facilities/Operations Affected: _____

Name/Location of Threatened Natural Resources: _____

Contamination of:

Soil _____ Water Bodies _____ Drains _____ Streets _____ Plants _____

People _____ Vehicles/Equipment _____ Other(explain) _____

Estimate Affected Area: _____

Other Agencies on Scene: _____

Response Action Taken: _____

Response Actions Planned: _____

Name & Phone # of persons completing this report: _____

Complete and submit this form to Public Works Surface Water Division (or fax 425-587-3807) within 48 hours after incident termination.

Water Quality Trouble Call Network Overview

WQTCN protocols & NPDES regulations

It is the City's obligation under the NPDES Phase II Municipal Separate Storm Sewer Permit for Western Washington to provide spill prevention, spill response planning/training, and spill cleanup. Failure to do so may result in fines, lawsuits, and other penalties. YOU may be held personally responsible for failure to follow established spill response procedures and guidelines.

Danger

The WQTCN is not a first responder to hazardous material spills. Call 911 immediately for any hazardous material spills and block off the area from the public.

When you receive a trouble call or observe a water quality problem, the following occurs:

1. Determines whether the incident is within the City of Kirkland. Is it on private property or public right of way?
2. If the incident is not within the City boundary or you cannot handle the call directly, refer to the appropriate agency (guide for contacts pg. 27-28). If the problem is on private property allow the owner or contractor to attempt to provide clean up. If they can't, city staff (**street section for roadway spills, surface or waste water section for spills impacting city systems, 911—Fire HAZMAT team for all Hazat spills**) will be called in and the private party will be charged for the clean up.
3. Direct citizen calls within unincorporated King County to the King County Water Quality Complaint Line at (206) 296-1900.
4. Direct off duty (weekends, holidays and after hour) emergency calls to the City of Kirkland's Public Works Department (425) 587-3900. Off duty calls from outside the City of Kirkland should be directed to the Washington State Department of Ecology 24 hour emergency line at (425) 649-7000.

Note:

If there is any confusion or uncertainty about which agencies to notify, call the WQTCN Coordinator at (206) 684-2328 or (206) 993-1353 (pager)

5. **If the incident is a crisis, make additional required notifications.** Hazardous chemical spills, oil spills, sewer overflows. Extreme erosion or flooding, or any incident in which fish or wildlife are killed is considered a crisis. See more details for notification procedures on following pages.
6. The City of Kirkland Spill Coordinator, (see contact list), logs in the incident on the Water Quality Trouble Call Network Report/Referral Form (See Section Five).
7. If necessary, the coordinator goes to the scene to provide onsite technical assistance. During unusual incidents, emergencies, or situations in which it is not clear which agencies have jurisdiction, the KC Coordinator will respond. Either may decide whether samples should be collected but authorization from the KC Coordinator should be given if possible, then they are delivered to the KC Environment Lab.

Emergency Spill Response Overview

Fish and Wildlife Kills

Cautions: *Birds can carry disease . Use caution.*



In the event of a fish or wildlife kill, do the following:

1. Gather as much information as possible
Try to find out the following information:
 - Time the incident occurred
 - Number of fish or wildlife killed
 - Cause of the kills, if obvious
 - Stress indicators (fish jumping out of water or having difficulty breathing)
2. Report the information to Washington State Department of Ecology and ask whether fish or animal specimens or water samples are needed.
- The telephone number is (425) 649-7000.
3. Report the information to the Washington State Department of Fish and Wildlife and ask whether fish & wildlife specimens or water samples are needed.
- The telephone number is (425) 775-1311.

Sewer Overflows

Cautions: *Sewer can contain bio-hazards and sharp objects such as needles. Use caution.*



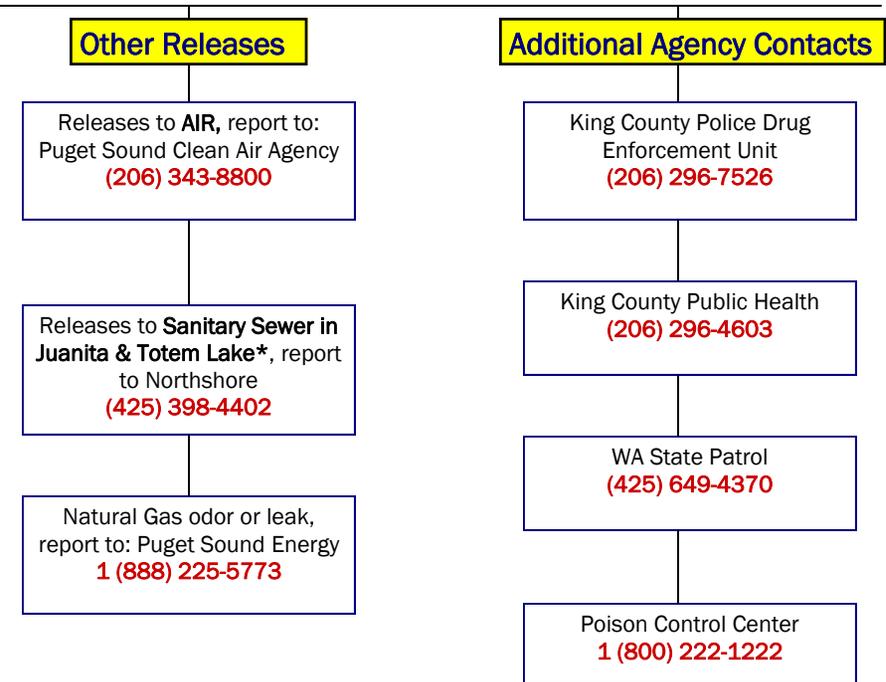
In the event of a sewer overflow, do the following:

1. If a local sewer line is involved during normal work hours, call the City of Kirkland Waste Water Division Manager of the Public Works Department at (425) 587-3909 / cell (425) 864-6114 or Lead at (425) 587-3906 / cell—(425) 864-3118. See contact sheet , (Section Four), if line is outside of city limits. (see map for city limits).
2. If King County sewer line is involved contact them as well as the Health Department. (see numbers on contact sheet, Section Four).
3. If sewage threatens to overflow into surface waters, call the City Spill Coordinator (see contact list in Section Four) to contact the Washington State Department of Ecology (number on contact list).

Guide for Spill Response Contacts



spills, or imminent danger— CALL 911.
Fire Department's Hazmat Response Unit.

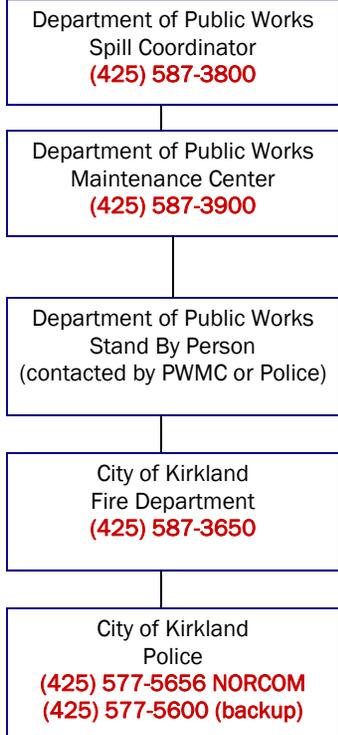


*** All other areas for Sanitary Sewer other than noted above, report to the City of Kirkland**

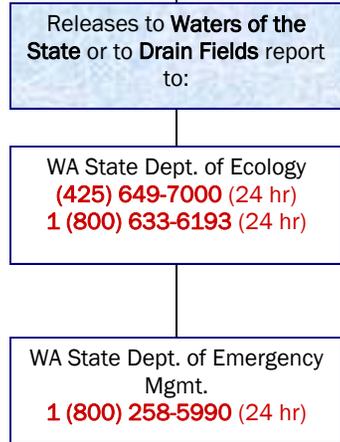
Guide for Spill Response Contacts

**Highly hazardous, uncontrolled
Immediately report spills to**

City of Kirkland Contacts



Release to Water



Emergency Spill Response Overview

Oil Spills

Danger Oil Spills can have toxic and hazard chemical fumes that can harm your health. Be prepared to use ventilation Protection.



In the event of an oil spill, do the following:

1. Gather as much information as possible. Try to find out the following information: Name and contact information of reporting party and responsible party. Location of incident (GPS coordinates, cross streets, landmarks—as detailed as possible), Type of material released, quantity spilled and approx. size of area, possible sources of spill (names of vessels in area, if spill in waterway), Clean-up status, Damage to wildlife.
- *Note King County Sheriff's Office, Marine Unit patrols City of Kirkland's waterfront.
2. Report information to the National Response Center—1-800-424-8802.
3. Notify Washington Emergency Management Center—1-800-258-5990
4. Notify U.S. Coast Guard. (206) 217-6232
5. Notify WA State Department of Ecology (425) 649-7000

Extreme Erosion or Flooding

Run Off can contain bio-hazards and sharp objects such as needles. Use caution.



In the event of extreme erosion or flooding, do the following:

For flooding in the City of Kirkland contact the Surface Water Division Manager with the Public Works Department at (425) 587-3909 / cell—(425) 864-6114 or Lead at (425) 587-3906 / cell—(425) 864-3118. For flooding in unincorporated King County contact the flood warning center—open during floods—at (206) 296-4535 (this is a recording). For roadway flooding (206) 296-8100, drainage problems (206) 296-1900.

Hazardous Chemical Spills

Danger The WQTCN is not a first responder to hazardous material spills. Call 911 immediately for any hazardous material spills and block off the area to protect the public.



See Oil Spill steps to gather as much information—call 911 and request the Fire Department HazMat team. WQTCN Coordinator to Contact National Response Center, State DOE and State Emergency Management Center. Contacts listed in Section Four or Oils Spill info. above.

Kirkland’s Basic Spill Response Protocol

Duty of Person on Emergency Response Pager

Staff assigned to the emergency response pager are considered the Incident Commander and are considered the first responder. Assigned staff, (which rotates), makes the decisions for actions taken in the field. First priority is to provide public safety and Second is to reduce risk and liability. The Water Quality Coordinator may be asked to assist the Pager Responder to make proper notifications to other agencies, help with documentation of spills and provide the follow up to bring the spill to closure through education or enforcement (See page 22 for Water Quality Coordinator’s Role).

Unknown point of pollutant

A condition where **no known point of pollution** is traceable to an individual or property. Pollutants are found to be non-hazardous during initial investigation of the spill response, and pollutants are entering the public stormwater conveyance system.

1. Pollutants **Shall be removed ASAP** by public works field crews.
2. If able, isolate the spill ASAP with mechanical or inflatable plugs.
3. When cleaning spilled material, start downstream and at the most severe point, (source to begin with) then start ASAP at the out-fall, remove any standing/trapped area first, then work upstream cleaning catch basins, manholes, pipes.

Known point of pollutant

A condition where the **known point of pollution** is traceable to an individual, property, or contractor.

1. If able, stop the pollutant and/or isolate the spill ASAP with mechanical or inflatable plugs. Either on private property or ROW. **The violator must have first opportunity to clean up the incident in ideal conditions.**
2. If the pollutant is from a private source (house, building lot, business, contractor) contact the on site representative ASAP. Explain the situation **REQUIRING clean up ASAP**; ask them to clean up the spill in a reasonable amount of time with qualified workers. Reasonable time? This can vary greatly, dependant of the weather, traffic, and numerous conditions. (example; if a paint spill is isolated to a private storm system with no indication of rain in the near future, it would be ok to let the clean up go until the next day & if rain was imminent call Public Works crew for clean up and inform the party the City will be billing them.
3. If the violator is unable to or unwilling to start the clean up process then contact the Department of Ecology for assistance or call Public Works. Give them the option if able. They don’t want to deal with DOE, they can charge up to \$10,000 per day for non-compliance.
4. If no contact can be made at the incident location or by permit process call P.W. crews ASAP and remove all pollutants from the conveyance system, starting at the out-fall.

Types of Water Quality Violations and Responsible Enforcement Agencies:

VIOLATION	AGENCY
Erosion from permitted construction and development sites both in and out of road right of way	King County Department of Development and Environmental Services (DDES)
Erosion from non-permitted construction and development activities	King County DDES
Erosion from franchised utility work in the road right of way	King County Dept of Transportation-Roads Services Division
Polluted discharges other than sediment (non-erosion measures) on construction and development sites	King County Dept of Natural Resources-Water and Land Resources Division (WLRD)
Spills entering the sanitary sewer system	The appropriate local sewer district and King County Industrial Waste
Industrial and commercial discharges to the sanitary sewer or combined sewer systems	King County Industrial Waste
Sewage discharge from broken sanitary sewer lines or equipment malfunction	King County Wastewater Treatment Division and local sewer district
Sewage discharges, including gray water other than from sewer line	Seattle-King County Dept of Public Health
Septic system installation/maintenance/haulers/disposal	Seattle-King County Dept of Public Health
Boat bilge and head discharge into WA State waters within three miles	Navigable waters-U.S. Coast Guard From I-5 Bridge to Lake WA-WA State Dept of Ecology
Discharges from commercial and public swimming pools and spas	Seattle-King County Dept of Public Health
Potable water or well contamination	Seattle-King County Dept of Public Health
NPDES permitted businesses	WA State Dept of Ecology
Restaurants-solid waste handling and runoff, grease trap, rendering boxes	Seattle-King County Dept of Public Health
Landfill issues, transfer stations, composting facilities, recycling, waste haulers	Seattle-King County Dept of Public Health
Large oil spills	WA State Dept of Emergency Mgmt. Ecology/U.S. Coast Guard
Traffic related spills	WA State Dept of Ecology/Local Fire Dept
Manure Management/Farm BMP's	King County DDES
Medical Waste	Seattle-King County Dept of Public Health
Radioactive Material	WA State Health Department
All other water quality violations in unincorporated King County	King County DNR-WLRD (Drainage Services)
All other water quality violations within incorporated area	See the Blue Pages in the phone book for the appropriate city agency

*from the King County WLRD/Water Quality Investigation and Enforcement Program-Guidance Document

Prohibited and Allowed Discharges to the Storm Drainage System

B. Allowable Discharges

The following types of discharges shall not be considered illicit discharges for the purpose of this chapter unless the Director of Public Works or his/her designee determines that the type of discharge, whether singly or in combination with others, is causing significant contamination of surface and storm water or ground water:

Potable water;
 Potable water line flushing;
 Untaminated water from crawl space pumps of footing drains;
 Lawn watering;
 Dechlorinated swimming pool water;
 Materials placed as part of an approved habitat restoration or bank stabilization project;
 Natural untaminated surface water or ground water;
 Flows from riparian habitats and wetlands;
 The following discharges from boats; engine exhaust, cooling waters, effluent from sinks, showers and laundry facilities, and treated discharge from Type I and Type II marine sanitation devices;
 Common practices for water well disinfection; and
 Other types of discharges as determined by the Director of Public Works or his/her designee

Exemptions

Dye testing is allowable but requires verbal notification of the Department of Public Works at least one day prior to the date of test. The King County Health Department is exempt from this requirement.

If a person has properly designed, constructed, implemented, and is maintaining BMPs, and is carrying out all known, available, and reasonable methods of prevention, control, and treatment, and contaminants continue to enter surface water storm water or ground water, that person shall not be in violation of Chapter 15.52 KMC.

3) Emergency response activities or other actions that must be undertaken immediately or within a time too short to allow full compliance with this chapter, to avoid an imminent threat to public health or safety, shall be exempt from the prohibitions listed above. The person responsible for emergency response activities should, however, take steps to ensure that the discharges resulting from such activities are minimized to the greatest extent possible. In addition, this person shall evaluate BMPs and the site plan, where applicable, to restrict recurrence of contaminated discharges.

When A Spill Occurs & Other Concerns

When A Spill Occurs

- **ASSESS THE RISK:** Determine the nature and substance of the spill
- **CONTAIN THE SPILL:** Use berms socks, dikes, or boom to contain the spill and keep it from spreading or contaminating water sources.
- **STOP PRODUCT FLOW:** Act quickly to stop the source of spilled material, if possible. This minimizes spill size.
- **ABSORB CONTAINED FLUIDS:** Place absorbent pads, pillows, socks and booms directly on the spill.
- **DISPOSE & DECONTAMINATE:** Dispose of contaminated material in compliance with local state and federal regulations. Decontaminate the site, personnel, and all equipment.
- **COMPLETE FINAL REPORTS:** Complete all notification documents, medical exposure reports, and paperwork associated with the spill.

Other Concerns

It is important to emphasize the importance of cleaning a spill that enters our water ways; if a paint or drywall spill gets into Lake Washington there is little we can do to remove the existing pollutants in the Lake. BUT, we have an obligation to the community and to the City of Kirkland Surface Water Utility to PREVENT any further contamination to Lake Washington, especially when we are aware of spill conditions.

There may be situations where small amounts of gas, diesel, petroleum products have entered the storm system through a catch basin. The pollutant is washed out of the catch basin into the storm conveyance system and is no longer able to be isolated. It's almost impossible to remove the pollutant from the conveyance system at this point; the goal would be to flush the pollutant through the conveyance system to open water, from which evaporation from sunlight will remove the pollutants naturally. Then, ventilation of the storm conveyance system would be required to eliminate explosive conditions of the storm pipelines.

Section Two

Sampling

Overview of the Sampling Program

The Water Quality Trouble Call Network (WQTCN) sampling program was developed to improve our ability to identify the type, concentration, and toxicity of the contaminants involved in a spill and to track down the source of the problem. Sampling is a last resort and usually done for ongoing problems of unknown origin.

Kirkland Spill Coordinator provides network members with an emergency response sampling kit. These kits contain instructions, specially prepared sample bottles and other equipment to help Kirkland's Spill Coordinator take samples properly.

With kits readily available, all sample bottle can be filled on the spot before the substance in question disappears or becomes so diluted downstream that the contaminants and source cannot be traced. Samples are delivered to the King County Environmental Laboratory in Seattle for analysis.

In addition to identifying the contaminant and its source, the data generated from the collecting samples can help determine the following:

- Possible environmental effects to the watershed or sanitary sewer
- Possible leaks from industrial/sewage pipes
- Whether Action Levels were exceeded on a permit or if Washington State water quality standards were violated.
- Whether it is necessary to educate the local community on a specific problem.

Determining whether sampling is necessary is an important decision. The way a sample is collected is equally important. You should familiarize yourself with the information in this section before an emergency occurs. By doing so, you will be confident in using the proper procedures that maintain the integrity of the samples.



Prohibited and Allowed Discharges to the Storm Drainage System

As noted in **Kirkland Municipal Code, Chapter 15.52.090 (Illicit discharges and connections)**, certain discharges to be listed in the pre-approved plans are prohibited and allowed. In addition certain activities and circumstances are exempt from the prohibitions listed here.

In order to prevent discharge of pollutants such as those listed below, each property, business, and residence is required to implement best management practices, or BMPs. BMPs may include structural (i.e. water quality treatment facilities, roofs to cover materials) or non-structural (regular sweeping, moving activities inside) measures. Please feel free to call the Public Works Department at (425) 587-3900 with any questions relating to BMPs or water quality.

A. Prohibited Discharges

Prohibited discharges include, but are not limited to, the following:

- Trash or debris;
- Construction materials;
- Petroleum products including but not limited to oil, gasoline, grease, fuel oil, heating oil;
- Antifreeze and other automotive products;
- Metals in either particulate or dissolved form;
- Radioactive material;
- Batteries;
- Acids, alkalis, or bases;
- Paints, stains, resins, lacquers, or varnishes;
- Degreasers and/or solvents;
- Drain cleaners;
- Pesticides, herbicides, or fertilizers;
- Steam cleaning wastes;
- Soaps, detergents, or ammonia;
- Swimming pool backwash;
- Chlorine, bromine, and other disinfectants;
- Heated water;
- Domestic animal wastes;
- Sewage;
- Recreational vehicle waste;
- Animal carcasses;
- Food wastes;
- Bark and other fibrous materials;
- Collected lawn clippings, leaves, or branches;
- Silt, sediment, or gravel;
- Dyes (except as stated below);
- Chemicals not normally found in uncontaminated water; and
- Any hazardous material or waste, not listed above

Kirkland Municipal Code:

Article III. Water Quality and Flood Protection

15.52.090 Illicit discharges and connections.

- (a) All illicit discharges, as set forth in the standard plans, made either directly or indirectly to a public drainage control system, are prohibited and constitute a violation of this chapter.
- (b) Certain discharges may be made directly or indirectly to a public drainage control system, or are exempt from subsection (a) of this section, as set forth in the standard plans.
- (c) Any connection, identified by the director, that could convey anything not composed entirely of surface and storm water, directly to surface, storm, or ground waters is considered an illicit connection and is prohibited with the following exceptions: connections conveying allowable discharges, connections conveying discharges pursuant to a National Pollutant Discharge Elimination System (NPDES) permit as issued by the state (other than an NPDES storm water permit) or a state waste discharge permit, and connections conveying effluent from on-site sewage disposal systems to subsurface soils. Presence of prohibited connections as defined herein constitutes a violation of this chapter. (ORD. 3711§4 (part), 1999)

15.52.100 Source control best management practices.

Any person causing or allowing discharge to a public drainage facility, natural drainage system, surface and storm water, or ground water shall control contamination in the discharge by implementing appropriate source control BMPs. Failure to implement such practices shall constitute a violation of this chapter. Guidance on designing and implementing BMPs is provided in the standard plans. (ORD. 4200 § 20, 2009; ORD. 3711 § 4 (part), 1999)

15.52.110 Water quality standards.

The City of Kirkland hereby adopts by reference the water quality standards established under the authority of Chapter 90.48 RCW and contained within Chapter 173-201A WAC as presently written or hereafter amended. (ORD. 3711§4 (part), 1999)

Sampling

How the Sampling Program Works

When Kirkland's Spill Coordinator is notified of a water quality problem or personally observes a problem, the following occurs:

1. Reporting party should complete Part A of the Spill Response Report Form (page 30)
2. Kirkland coordinator can choose to notify WQTCN Coordinator, individually or together, they may determine whether samples should be collected.
3. *If it is safe to do so*, Kirkland's Spill Coordinator collects samples and conducts the onsite investigation.
4. The coordinator starts the notification procedure. *The coordinator calls the appropriate responding and enforcement agencies, and notifies the King County Environmental lab of possible samples (if chooses to use).*
5. The Kirkland Spill Coordinator delivers the samples to an Environmental laboratory (may choose to use King County's if working with WQTCN Coordinator).
6. The King County coordinator and lab personnel work together to determine analysis needs. *The coordinators and lab personnel decide what parameters to analyze and determine a turn-around time for the results.*
7. The Kirkland Spill Coordinator follows up on the incident with the lab and network members. *The follow-up will include the following:*
 - *Identity of sampled material (if possible)*
 - *Quantitative analysis*
 - *Narrative report with data results*
 - *Situational tracking (which agencies responded, what has happened to date, onsite activities, final outcomes)*

Sampling Guidelines

Often, responding to a trouble call **does not** require that a sample be collected. However, you should always be prepared to sample by familiarizing yourself with the following guidelines.

Your safety is first

When sampling, your safety is the highest priority. As a member of the network, your role does not include emergency response. **You may not enter a hazardous environment** to take samples or conduct an investigation. The Kirkland Fire Department HAZMAT team is the lead agency for responding to emergency hazardous material incidents.

Sampling Guidelines Continued

Follow these safety rules:

- Do not enter confined spaces, manholes, trenches or excavations, building in danger of collapse, and areas with strong vapor, chemical clouds or odor
- Wear appropriate personal protective equipment at all times
- Do not smoke during sampling
- Do not eat during sampling
- Remove and decontaminate clothes worn during sampling
- Always wash your hands after sampling

When to sample

Danger: *If you suspect a hazardous substance, do not take a sample.*

Generally, samples should be taken when you observe signs of contamination, such as the following:

- Unusual odors, such as sewage or solvent smell
- An oily sheen
- Turbid or muddy water
- Large numbers of birds or waterfowl in the immediate area
- Unusual color in the affected waterway

If you suspect that the material is hazardous, **do not take a sample**. Use your sense of smell and sight along with your instinct when responding to a trouble call. However, remember that not all contaminants can be detected by your senses. If you have any doubt, do not take a sample.

General sampling rules

Improperly collected samples may result in invalid analytical data. Invalid data are costly because of the time and resources spent on sampling, analytical staff, chemical reagents, data review, and reporting. Follow these rules to ensure that a representative sample is taken:

- Always wear disposable latex gloves when sampling. Use new, uncontaminated gloves at each sampling point.
- Whenever possible, fill sample bottles in the following order:
 1. Microbiological
 2. Volatile organic analysis (VOA)
 3. Organics
 4. Oil and grease
 5. Metals
 6. Inorganics (such as pH, turbidity, nutrients and total suspended solids)

*Samples are time-sensitive, deliver them to the King County Environmental Lab as soon as possible.

Required Notifications:

Per the Clean Water Act (CWA):

All spills of oil or hazardous substance into navigable waters as defined by the Clean Water Act (CWA) and all spills of a reportable quantity of hazardous substances (40 CFR Part 302) must be immediately reported by the spiller to the National Response Center (NRC). The NRC will contact appropriate local US Coast Guard (USCG) or Environmental Protection Agency (EPA) offices. Notifying state offices does not relieve the spiller from federal requirements to notify the NRC nor vice versa.

National Response Center (NRC) 1-800-424-8802 Toll Free

All spills of oil into Washington State Waters must be immediately reported to the Washington State Emergency Management Division. Marine casualties, disabled vessels or near-miss incidents should also be reported.

The Washington Emergency Management Division (EMD) 24 hr. Emergency Spill Response 1-800-258-5990

For spills of hazardous substances, the spiller is also required to notify the nearest regional office of Ecology.

The Washington State Department of Ecology 24 hr. Emergency Spill Response—N.W. Office, Bellevue 1-(425) 649.7000



City of Kirkland Water Quality Coordinator

The role of the Water Quality Coordinator is to be a resource to the first responders and/or incident commanders (Fire, Police, and Operations). The primary role is to provide NON-EMERGENCY follow-up and assistance for items such as these:

Cleanup advice and referrals to cleanup resources: Provide advice on methods of containing and cleaning spills to prevent damage to downstream facilities and natural resources. Refer others to suppliers of spill response services and equipment. Develop standing/open contracts with spill control vendors.

Sampling: If the problem is on-going and the source is unknown, or if there is a need to determine the source or nature of the contaminants spilled, or if the coordinator determines that sample results would bolster an enforcement action, he/she can determine where/when/how to sample and can collect samples and deliver them to an environmental laboratory for analysis.

Post-cleanup inspection: Determine whether cleanup is complete, provide advice and referrals for disposal of collected materials. Assess impact to downstream resources, especially including natural drainage courses, and need for mitigation/cleanup work.

Enforcement: Conduct enforcement actions as appropriate including notice of correction or violation, notice of civil infraction (which can include fines), and billing the responsible party for any City cleanup costs.

Spill Prevention and Education/Outreach: Work with the responsible party on procedures and practices that can be used to prevent future spills. Document the actions of the responsible party to insure accountability and follow-through.

Spill Response Training: Work with first responders and incident commanders on methods and materials for spill control, organize appropriate training events/classes. Coordinate debrief and analysis of spill response actions.

Drill in the importance of protecting downstream resources at all times during spill response.

Coordination with other governmental agencies: For spills not caused by City practices or facilities, provide notice to the appropriate State and Federal agencies concerning the nature of the spill and cleanup actions to date. ***This does not include calling these agencies for emergency response, which should occur as needed during a spill event.***

Sampling Guidelines Continued

Your sampling kit

Your sampling kit includes all of the items listed in the table. You must keep kit complete at all times in order to respond to incidents in a timely manner. To restock your kit, call (206) 684-2328 or obtain one or contact Test America at (253) 922-2310.

Kit Item	Quantity per Kit
Sample bottles (8 total)	
Microbiological (500 mL plastic sterile bottle w/red dot)	1
VOAs (40 mL glass with septum)	2
Organics (1-L amber-colored glass)	2
Oil and grease (1-L CWM glass)	1
Metals (500 - mL plastic)	1
Inorganics (1 - L HDPE wide mouth)	1
Hand wipes (in plastic bag)	1
Extra plastic bag (in bottom of box)	1
Gloves , size large, stuffed into a #1 container Note: if you are allergic to latex, notify the WQTCN Coord. for other gloves	1
Barricade tape (in plastic bag)	30 ft.
Sampling bucket (stainless steel) w/rope	1
Rope	30 ft.
Band	1
Absorbent pads	1
Instructions	1

Sample Kit Inventory

Sampling instructions

To ensure accurate sampling, always follow these procedures:

Danger *If you suspect the spill is hazardous, stay clear and call 911. Do not attempt to collect any samples or conduct an investigation.*

1. The Kirkland Spill coordinator is the primary to collect samples, however, if not available, obtain approval from the Kirkland Spill Coordinator to collect samples. Whenever possible, you must notify the coordinator to determine that it is safe to collect samples.

Danger *You must put on appropriate personal protective equipment (PPE) before collecting samples. Gloves are the minimum PPE required for sampling.*

2. Put on the pair of gloves provided in the sampling kit.
3. Put on other personal protective equipment (PPE) as necessary. Depending on the situation, the following may be required:
 - Hard Hat
 - Coveralls
 - Safety boots
 - Safety glasses
 - Ear protection
4. Determine the sampling location.
5. Place the sample bottles upright in the sample kit and loosen the caps of all bottles.
6. Collect samples by hand (take a grab sample) if it is safe and easy to do so.
7. If samples cannot be taken by hand, locate the sampling bucket in the sampling kit.

Note: *The sampling bucket is sterile. Do not remove the foil until you are ready to sample. Do not touch the inside of the bucket.*

8. Lower the bucket, using the rope, into the sampling source. You will need to lower the bucket into the water several times to fill all the containers.
9. Fill bottles in order using the proper methods. See the accompanying table for the filling methods and make sure to fill all bottles.

Note: *If you need to take samples at an additional location, you must use another sampling kit.*

10. Replace caps on bottles securely and put all bottles into an ice-filled cooler. If a cooler is not available, a bag of ice spread evenly around the sample bottles will work just fine.
11. Completely fill out the Water Quality Trouble Call Network Field Sheet (page 32). Samples will not be accepted if this form is not completed.
12. Notify the Kirkland Spill Coordinator that samples have been collected and immediately transport samples to the lab.

Vendor & Resource List

INNOVAC

20909 – 70th Ave. W.
Edmonds, WA 98026-7201
Phone: 1-800-945-4081
Fax: 206-783-9109

LAVELLE VAC & DRAINAGE

P.O. Box 3028
Federal Way, WA 98063
Phone: 253-815-0988
Fax: 253-815-0325

MARSHALL BROTHERS INDUSTRIAL VACUUM SERVICE

P.O. Box 1649
Snohomish, WA 98291
Phone: 425-377-9820

MCDONOUGH & SONS, INC.

P.O. Box 461
Ravensdale, WA 98051
Phone: 425-432-1054
Fax: 425-432-3155

NORTHWEST CASCADE, INC.

P.O. Box 73399
Puyallup, WA 98373
Phone: 253-838-2359
Fax: 253-848-2399

NRC ENVIRONMENTAL SERVICES

P.O. Box 39
Kent, WA 98035
Phone: 253-872-8988

PRO-VAC

6622 – 112th St. E.
Puyallup, WA 98373
Phone: 1-888-565-5665

VENTILATION POWER CLEANING

3914 Leary Way NW
Seattle, WA 98107-5042
Phone: 206-634-2750
Fax: 206-634-2753

WEST-VAC dba WESTERN STATE ENVIRONMENTAL

P.O. Box 2265
Kirkland, WA 98083
Phone: 253-520-3995
Fax: 253-520-3802

A Note on Working with Drainage System Maintenance Contractors

Before hiring a contractor, it's prudent to obtain at least three bids. Drainage system maintenance is a competitive field and you'll usually save money by shopping around. Make sure you get your money's worth. Most firms have substantial callout fees and depending on the size of your system, having your entire system cleaned may not cost any more than having only one or two structures cleaned. If you are looking for a contractor in response to an inspection by Kirkland's private maintenance inspectors, give the contractor who is bidding a copy of the inspection report. The information it contains will save time and make it easier for the contractor to prepare an accurate estimate. Let the contractors know that they can contact Kirkland's private maintenance inspectors directly with questions or technical problems.

Vendor & Resource List

FIRMS PROVIDING DRAINAGE MAINTENANCE SERVICES Updated 2009

The firms below perform drainage system cleaning and maintenance services. If you are looking for a company to perform drainage system maintenance, check the telephone book, ask other businesses for recommendations, or take a look at the following list. Kirkland provides this list for your convenience only and makes no recommendation whatsoever regarding these firms. If you would a business added to this list, please contact Stacey Rush at (425) 587-3854.

ACTION SERVICES

P.O. Box 4339
Bremerton, WA 98312
Phone: 1-800-944-2284

AQUA CLEAN JET-N-VAC

18912 SE 133rd Pl.
Renton, WA 98059-7201
Phone: 1-800-842-5326

BRAVO ENVIRONMENTAL SERVICE

6705 NE 175th St.
Kenmore, WA 98028
Phone: 425-424-9000
Fax: 425-424-9002

COASTAL ENVIRONMENTAL

P.O. Box 259
Lake Stevens, WA 98258
Phone: 206-622-7070

CUZ CONCRETE PRODUCTS, INC

19604 – 67th Ave. NE
Arlington, WA 98223
Phone: 1-800-659-1941

DAVIDSON - MACRI SWEEPING

12020 SE 32nd St., Suite 4
Bellevue, WA 98005
Phone: 425-289-1145
Fax: 425-289-1146

DRAINAGE SYSTEMS CONSULTANT

P.O. Box 46876
Seattle, WA 98146
Phone: 206-242-7280
Fax: 206-242-8310

EMERALD RECYCLING

7343 E. Marginal Way S.
Seattle, WA 98108
Phone: 206-762-8824
Fax: 206-832-3030

EVERSON'S ECONO-VAC, INC.

P.O. Box 428
Sumner, WA 98390
Phone: 253-862-5851
Fax: 253-862-5890

GUARDIAN INDUSTRIAL SVS, INC.

1813 – 99th St. E.
Tacoma, WA 98445
Phone: 253-536-0455
Fax: 253-536-3072

Sampling instructions

Proper Methods for filling sample containers (using sample bucket)

To ensure proper sample preservation:

- Do not rinse any of the bottles
- Use the correct bottle for each sample category given below
- Fill each bottle only to the level indicated in each category
- Place all samples in an ice-filled cooler immediately after collecting
- If possible, take the different types of samples in order as shown below, starting with the microbiological sample

<p style="text-align: center;">Bottle 1: Microbiological</p> <ul style="list-style-type: none"> • Collect Sample • Select the 500 mL sterile HDPE container with red dot on the cap. • Remove cap only when you are ready to fill the bottle. • Fill the bottle to the red line • Replace cap securely. 	<p style="text-align: center;">Bottle 4: Oil & grease</p> <ul style="list-style-type: none"> • Collect Sample. • Slowly fill the 40 mL glass vial with Teflon cap to overflowing-positive meniscus. • Carefully set the vial on a level surface. • Pour a small amount of sample into the vial cap. • Place cap onto vial and seal. • Invert bottle and tap vial with finger to detect air bubbles. • If no air bubbles are visible, place in cooler. • If air bubbles are visible, discard sample and repeat steps 1 through 7. • Repeat steps and fill other VOA vial.
<p style="text-align: center;">Bottle 3: Organics</p> <ul style="list-style-type: none"> • Collect Sample • Remove cap from a 1-L glass amber bottle. • Fill <i>completely</i> to the top. • Replace cap securely. 	<p style="text-align: center;">Bottle 4: Oil & grease</p> <ul style="list-style-type: none"> • Collect Sample. • Remove cap from a 1-L wide mouth glass bottle. • Fill to neck. • Replace cap securely.
<p style="text-align: center;">Bottle 5: Metals</p> <ul style="list-style-type: none"> • Collect Sample • Remove cap from a 500-mL HDPE narrow-mouth bottle. • Fill to the neck. • Replace cap securely. 	<p style="text-align: center;">Bottle 4: Oil & grease</p> <ul style="list-style-type: none"> • Collect Sample. • Remove cap from a 1-L HDPE wide mouth glass bottle. • Fill to neck. • Replace cap securely.

Section Three

City of Kirkland Map Links

GIS Map Links

The following links provide maps that were developed by the City of Kirkland's GIS team (flood plain areas, water/sewer information, wetland and other critical areas, city boundary and neighborhoods, fire districts, lifeline routes.

- Floodplain - <http://kirknet/mapbook/PDF/StandardMaps/SensitiveAreasMap.pdf>
- Water Info - <http://kirknet/mapbook/water.htm>
- Sewer Info - <http://kirknet/mapbook/wastewater.htm>
- Wetland and other critical areas - <http://kirknet/mapbook/PDF/StandardMaps/SensitiveAreasMap.pdf>
- City Boundary and Neighborhoods - <http://kirknet/mapbook/PDF/StandardMaps/Nbrhoods-City.pdf>
- Fire Districts - go to the city Intranet new Browser and hit the public safety layer to locate stations. http://ssk-gism01/mox52/cityindex.cfm?action=mox52_if_frameset



Section four

Spill Response Contact List—see page 28-29

City of Kirkland

The following staff numbers may change. Please contact the surface and waste water manager with updated information. It will be added when this manual is reprinted.

- Hazmat Team or Police/Fire **911**
- Kirkland's Fire Dept. **(425) 587-3650**
- Public Works Maintenance Center **(425) 587-3900**
- Kirkland's Police Dispatch **(425) 577-5656 NORCOM** or **(425) 577-5600**
- Kirkland WQC Coordinator **(425) 587-3851/cell (206) 300-6905**
- Kirkland Surface and Waste H2O **(425) 587-3909 /cell (425) 864-6114** or Lead at **(425) 587-3906 /cell (425) 864-3118**
- Kirkland Streets **(425) 587-3911** or lead at **(425) 587-3904**
- Kirkland Water **(425) 587-3910/cell (206) 949-4400** or lead at **(425) 587-3905/cell (425) 681-6662**

External Contacts

Environmental Protection Agency **1-800-424-8802** .

(report to EPA any spills that can migrate to any navigable waterway)

WA State Department of Ecology **(425) 649-7000**

WA State Fish and Wildlife **(425) 775-1311**

National Response Center **1-800-424-8802**.

Washington Emergency Management Center **1-800-258-5990**

U.S. Coast Guard **(206) 217-6232**

King County WQTCN Coordinator **(206) 684-2328** cell **(206) 423-7834**

pager **(206) 993-1353**

King County Water Quality Complaint Line **(206) 296-1900**

Flooding outside city limits call King County Flood Warning Center—open during floods—at **(206) 296-4535**. For road-flooding **(206) 296-8100**, drainage problems **(206) 296-1900**

EPA - Local Government Reimbursement Program **1-800-431-9209**

For supplies: NRC (Previously Foss Environmental) **1-800-909-3677**



way

For disposal of material:

City eductor trucks do not respond for removal of flammable materials. Typical eductor truck materials can be processed in city decanters. All other materials should be disposed of by contractors with City Fire Department